# SERVICE MANUAL Pm-6a

marantz®

## Model Pm-6a

## Stereo Pre Main Amplifier

# MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound. Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

**ORDERING PARTS:**
Parts can be ordered either by mail or by telex. In both cases, MARANTZ part number has to be specified. If you order by mail, fulfil MARANTZ order forms.

MARANTZ S.A.
EUROPEAN PARTS DEPARTMENT
2, Avenue Léopold III
B-7120 PERONNES-lez-BINCHE
BELGIUM
TWX: 57589 SEPLT B

The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

**PARTS ORDERING:**
Parts may be ordered from the following addresses:

## EUROPE

**MARANTZ S.A.**
European Parts Department
2, Avenue Léopold III
B-7120 Péronnes-lez-Binche
Belgium
Telex: 57589

**MARANTZ NORSKE A.S.**
Refstadalleen 13
Oslo 5
Norway
Telex: 19659

**MARANTZ DENMARK**
Bregnerødvej 132b
3460 Birkerød
Denmark
Telex: 39137

**MARANTZ GMBH AUSTRIA**
Wiedner Hauptstrasse 98
1050 Wien
Austria
Telex: 113583

**MARANTZ S.A.**
326 Avenue Louise Bte 32
1050 Brussels
Belgium
Telex: 26602

**MARANTZ FRANCE**
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

**MARANTZ BELGIUM**
45 Rue Auguste Van Zande
1080 Brussels
Belgium

**MARANTZ SVENSKA A.B.**
Svartviksvangen 56
Traneberg - Box 12016
16112 Bromma
Sweden
Telex: 13449

**MARANTZ GERMANY GMBH**
Max Planckstrasse, 22
6072 DREIEICH 1
West Germany
Telex: 4185316

**MARANTZ AUDIO U.K. LTD.**
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

## AUSTRALIA

**MARANTZ AUSTRALIA PTY., LTD.**
32 Cross Street
Brookvale, N.S.W. 2100
Australia
Telex: 24121

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

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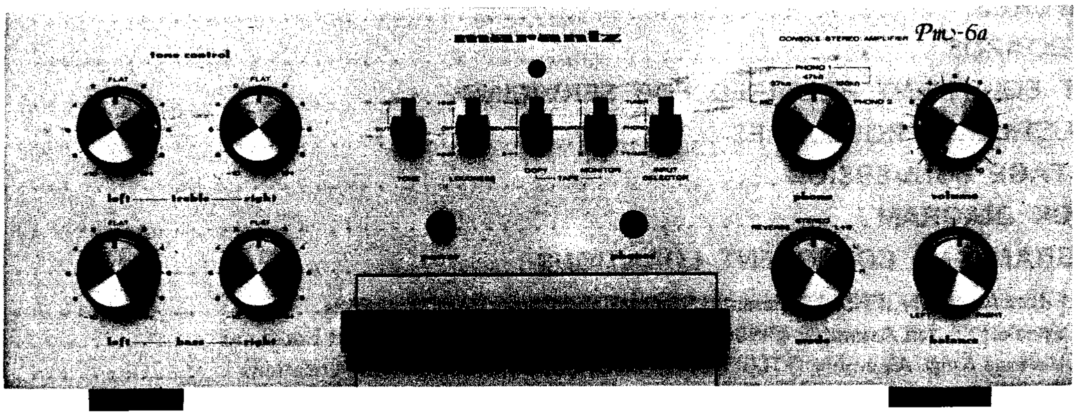
# MARANTZ MODEL Pm-6A STEREO PRE MAIN AMPLIFIER



## INTRODUCTION

This service manual was prepared for use by Authorized Warranty Staions and contains service information for the Marantz Model Pm-6a Stereo Pre Main Amplifier.

Servicing information and voltage data included in this manual are intended for use by knowledgeable and experienced personnel only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of circuitry operation.

The parts list furnishes complete ordering information. Most replacement parts should be ordered from the Marantz Company. However, a simple description is included for parts which can be obtained locally.

## 1. FEATURES

- **MC Head Amplifier (13 transistors for each channel)**
  The first stage of the MC head amplifier is a push-pull amplifier consisting of 4 very low noise NPN transistors and 4 very low noise PNP transistors. The second stage is also a push pull amplifier, and the output stage is a SEPP amplifier.
  The feedback circuit impedance is reduced as much as possible to improve the S/N ratio, and a voltage gain of 20 dB (10 times) is obtained at a rated input level of 125 $\mu$V.

- **PHONO Amplifier (11 transistors for each channel)**
  The PHONO amplifier uses a full push-pull circuit consisting of 11 transistors for each channel so that low TIM distortion and a high S/N ratio are obtained.
  The first stage is a push-pull circuit consisting of very low noise, high Gm N and P channel FETs combined with a cascode current Miller circuit so that degradation of following stage characteristics due to input stage impedance fluctuation is prevented.
  The second stage consists of an emitter follower buffer amplifier and a push-pull voltage amplifier.
  The output stage uses a SEPP circuit which is adequate to drive any type of load. The equalizer elements have very low impedances compared with conventional circuits so a S/N ratio of 90 dB is obtained at the rated input level. The equalizer elements are metal film resistors with tolerances of 1% and polypropylene capacitors with tolerances of 2%; this makes it possible to obtaine an RIAA phono equalization of ±0.2 dB over the audio range from 20 Hz – 20 kHz.

Input impedances 27 kΩ, 47 kΩ and 100 kΩ are provided for different types of cartridges when the PHONO 1 input is selected.

The PHONO amplifier output circuit is provided with a relay to mute undesirable noise when the power is switched ON and OFF, and with a EQ subsonic filter to reduce turntable rumble and flutter.

- **Quarter A System**

The quarter A system automatically switches the bias current and supply voltage to the main amplifier by detecting the main amplifier input voltage and speaker current; thus, the main amplifier operates in class A when the power output is up to 30W/8Ω, and in class AB when the power output exceeds that level.

The phase correction circuit in the detection circuit prevents distortion from being generated even if a waveform with a sharp rising edge is applied.

Marantz's usual superb amplifier circuit has not been altered in this system, except that the detection circuit is connected to the signal system.

**Voltage amplifier**

The input circuit of the voltage amplifier is a source follower using a pair of FETs, so variation in the impedance of this stage does not influence following stage characteristics. The next circuit is a differential amplifier using a dual transistor, followed by an active balance loading circuit using a dual transistor.

One of the differential amplifier output signals is phase-inverted, then both signals are applied to the push-pull amplifier through the emitter follower buffer.

**Power amplifier**

The power amplifier employs triple Darlington connection and supper high $f_T$ power transistors connected in parallel.

The power amplifier uses unique push-pull circuit with excellent open loop characteristics and a 2-pole phase compensation circuit, so the frequency response is flat even at high frequencies and TIM distortion is reduced remarkably.

**Other features**

The speaker protection circuit uses a high performance IC and relay. The power supply circuit uses a large transformer with high regulation and newly developed, large capacity custom electrolytic capacitors.

To obtain continuous high power output, high efficiency heat pipes are used to radiate the heat produced by the power transistors.

## 2. P.W. BOARDS

As can be seen from the circuit diagram the chassis of Model Pm-6a consists of the following units. Each unit mounted on a printed circuit board is descrided within the square enclosed by a bold dotted line on the circuit diagram.

| | | | |
|---|---|---|---|
| 1. | **Pre-Amp.** | **mounted on P.W. Board** | **P400** |
| 2. | **Transistor Block** | **mounted on P.W. Board** | **P401** |
| 3. | **Power Amp.** | **mounted on P.W. Board** | **P600** |
| 4. | **Voltage Amp.** | **mounted on P.W. Board** | **P700** |
| 5. | **Ripple Filter** | **mounted on P.W. Board** | **PC00** |
| 6. | **Tone Amp.** | **mounted on P.W. Board** | **PE01** |
| 7. | **Loudness** | **mounted on P.W. Board** | **PF00** |
| 8. | **Mode/Balance/Vol.** | **mounted on P.W. Board** | **PG00** |
| 9. | **Filter** | **mounted on P.W. Board** | **PH00** |
| 10. | **Test Point** | **mounted on P.W. Board** | **PJ00** |
| 11. | **A-B Power Switch** | **mounted on P.W. Board** | **PK00** |
| 12. | **A-B Detector** | **mounted on P.W. Board** | **PL00** |
| 13. | **MC Transistor Block** | **mounted on P.W. Board** | **PM01** |
| 14. | **ASO Protector** | **mounted on P.W. Board** | **PN00** |
| 15 | **Tone On-Off** | **mounted on P.W. Board** | **PS00** |
| 16. | **Phone Input** | **mounted on P.W. Board** | **PV00** |
| 17. | **Speaker Switch** | **mounted on P.W. Board** | **PW00** |
| 18. | **Head Phone** | **mounted on P.W. Board** | **PX00** |
| 19. | **L.E.D. Power Ind.** | **mounted on P.W. Board** | **PY00** |

## 3. TEST EQUIPMENT REQUIRED FOR SERVICING

This table lists the test equipment required for servicing the Model Pm-6a Stereo Pre Main Amplifier.

| Item | Use |
|---|---|
| Distortion Analyzer | Distortion measurements |
| Audio Oscillator | Sinewave and squarewave signal source |
| AC VTVM | Voltage measurements (AC) |
| Oscilloscope | Waveform analysis and trouble shooting and ASO alignment |
| Circuit Tester | Trouble shooting |
| DC VTVM | Voltage measurements (DC) |
| AC Wattmeter | Monitors primary power to amplifier |
| Line Voltmeter | Monitors potential of primary power to amplifier |
| Variable Autotransformer (0 ~ 140V AC, 10A) | Adjust level of primery power to amplifier |
| Shorting Plug | Shorts amplifier input to eliminate noise pickup |

## 4. ADJUSTMENT PROCEDURES

- **Bias Current Adjustment**

(1) Class B

Connect JL15 and JL12 with a jumper.

| | |
|---|---|
| Parts adjusted: | RL43 and RL44 |
| Input: | — |
| Output: | 8Ω load |
| Adjustment: | Connect a digital voltmeter between JJ01 and JJ02 (for the L channel) or between JJ03 and JJ04 (for the R channel). Wait until the voltage stabilizes (30–60 seconds), then adjust RL43 or RL44 so that the voltmeter reads 14 mV. |

(2) Class A

| | |
|---|---|
| Parts adjusted: | RL39 and RL40 |
| Input: | — |
| Output: | 8Ω load |
| Adjustment: | Connect a digital voltmeter between JJ01 and JJ02 (for the L channel) or between JJ03 and JJ04 (for the R channel). Wait until the voltage stabilizes (30–60 seconds), then adjust RL43 or RL44 so that the voltmeter reads 370 mV. |

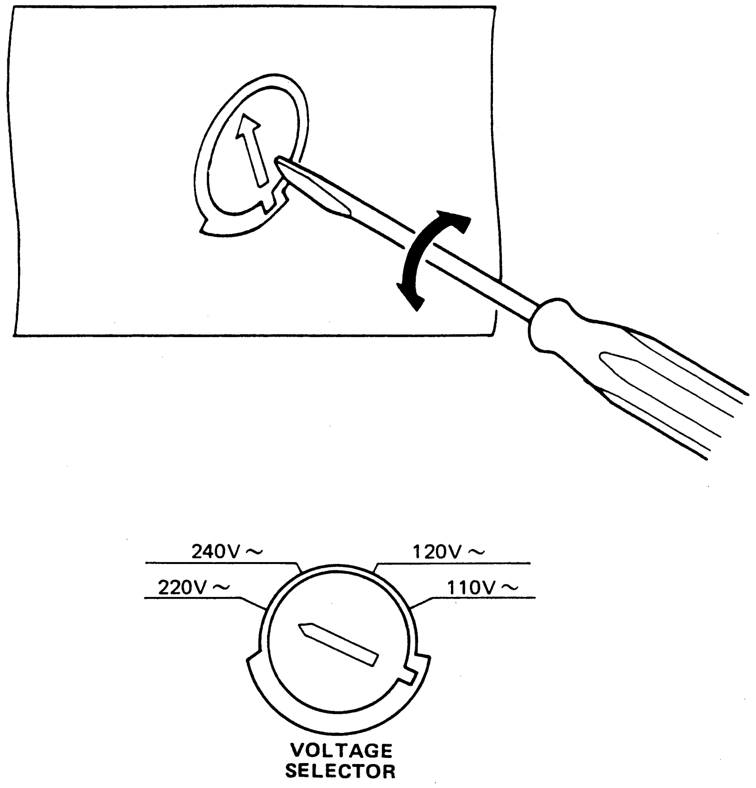
## 5. VOLTAGE CONVERSION

### • EUROPEAN MODEL ONLY

To convert the unit to a different power source voltage, change the position as illustrated in the drawing below.

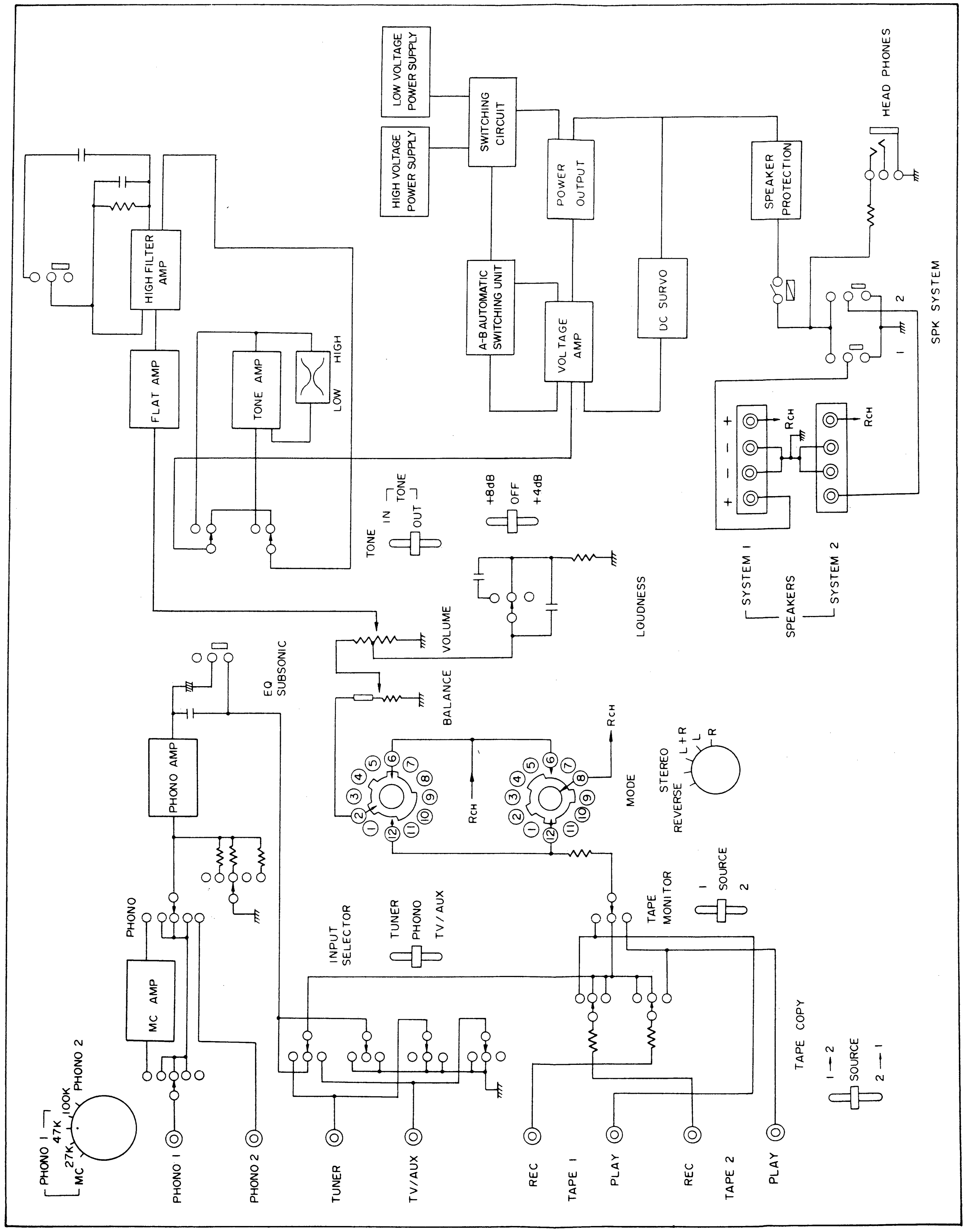
**CAUTION**
DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.

**Voltage Conversion Chart**


240V ~
120V ~
220V ~
110V ~
VOLTAGE SELECTOR

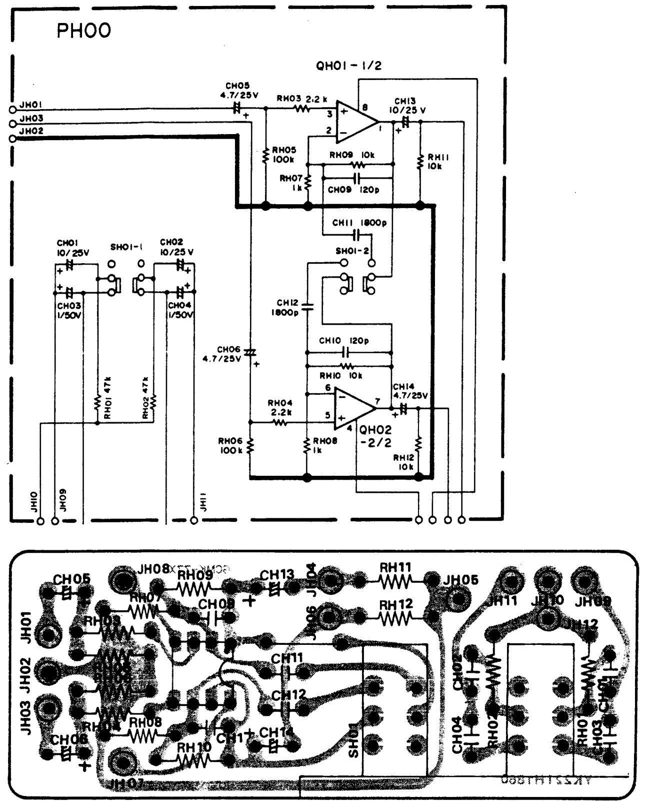
**Note on safety:** Symbol ⚠ Fire or electrical shock hazard. Only orignal parts should be used to replace any part marked with symbol ⚠ . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

## 6. BLOCK DIAGRAM

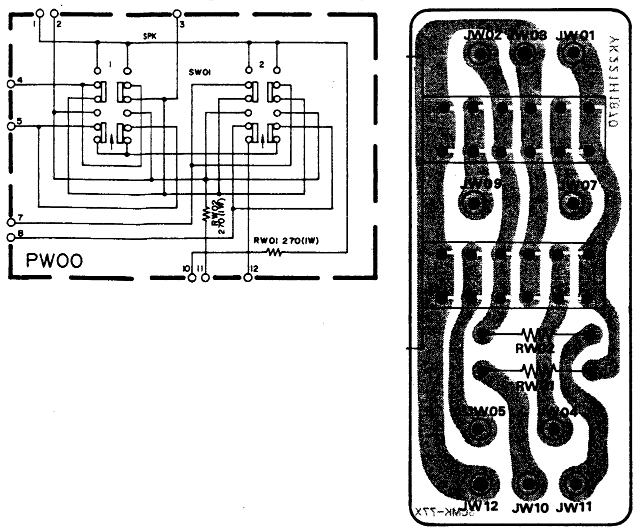

LOW VOLTAGE POWER SUPPLY
HIGH VOLTAGE POWER SUPPLY
SWITCHING CIRCUIT
POWER OUTPUT
SPEAKER PROTECTION
HEAD PHONES
HIGH FILTER AMP
A-B AUTOMATIC SWITCHING UNIT
VOLTAGE AMP
DC SURVO
SPK SYSTEM
2
1
FLAT AMP
TONE AMP
HIGH
LOW
TONE
IN
OUT
TONE
+8dB
OFF
+4dB
LOUDNESS
VOLUME
BALANCE
EQ SUBSONIC
+
−
−
+
RCH
RCH
SYSTEM 1
SPEAKERS
SYSTEM 2
PHONO AMP
RCH
RCH
MODE
STEREO
L+R
L
R
REVERSE
TAPE MONITOR
1
SOURCE
2
PHONO
INPUT SELECTOR
TUNER
PHONO
TV/AUX
MC AMP
PHONO 1
47K
100K
27K
MC
PHONO 2
TAPE COPY
1 → 2
SOURCE
2 → 1
PHONO 1
PHONO 2
TUNER
TV/AUX
REC
TAPE 1
PLAY
REC
TAPE 2
PLAY

## 7. DIAGRAM AND COMPONENT LOCATIONS

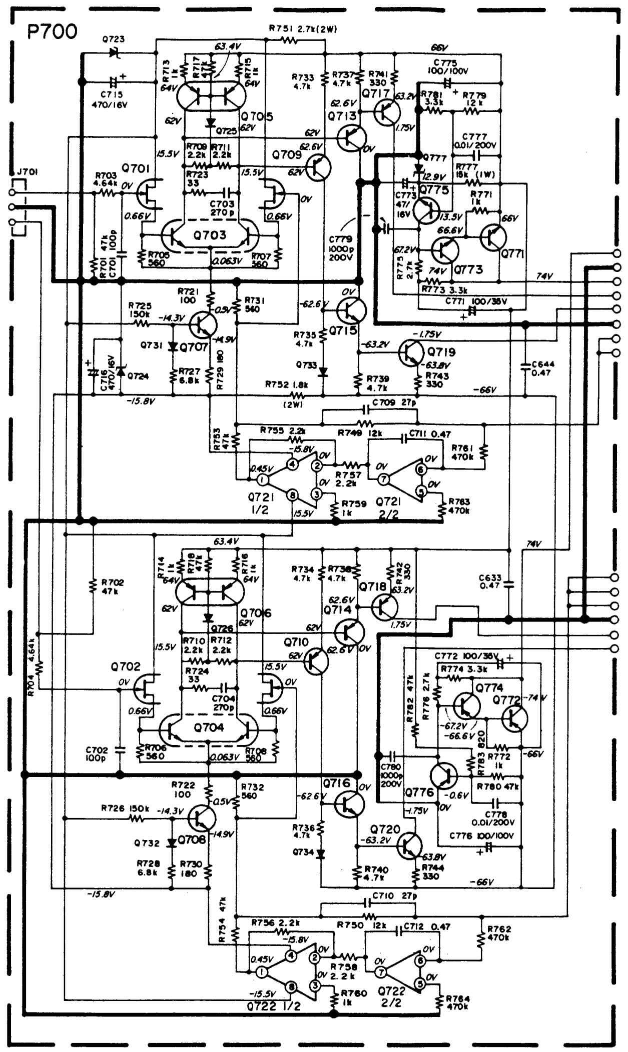
### 7.1 Filter Assembly (PH00) Schematic Diagram and Component Locations

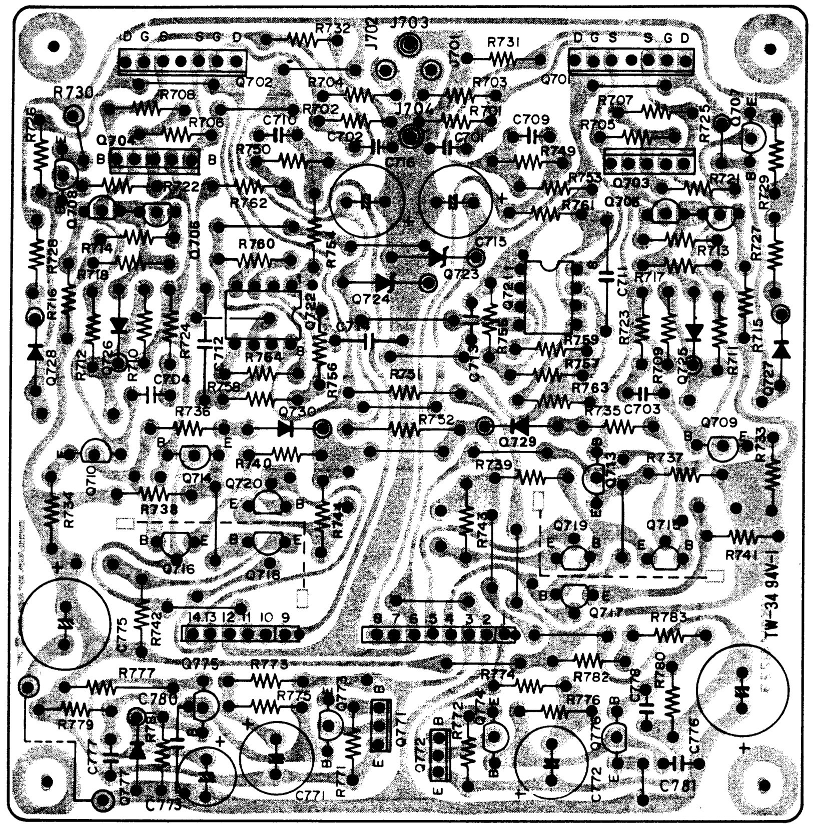

PH00
QH01-1/2
QH02-2/2
JH01
JH02
JH03
JH05
JH08
JH09
JH10
JH11
SH01-1
SH01-2

### 7.2 Speaker Switch Assembly (PW00)
### Schematic Diagram and Component Locations

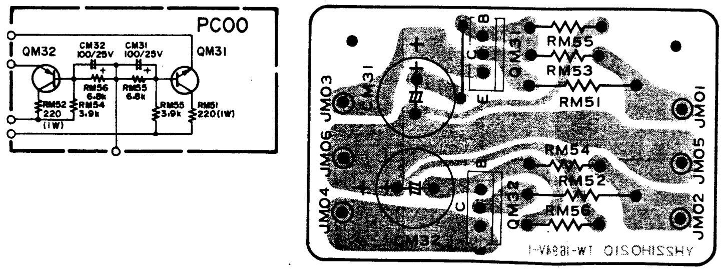

PW00
SPK
SW01
RW01 270(1W)
JW01
JW02
JW07
JW08
JW09
JW10
JW11
JW12

### 7.3 Voltage Amp. Assembly (P700) Schematic Diagram and Component Locations

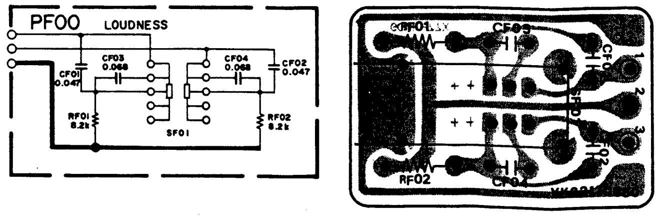

P700
J701
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q710
Q713
Q714
Q715
Q716
Q717
Q718
Q719
Q720
Q721 1/2
Q721 2/2
Q722 1/2
Q722 2/2
Q773
Q774


J703
J701
J702
Q701
Q702
Q703
Q704
Q705
Q709
Q710
Q713
Q716
Q719
Q720
Q723
Q724
Q729
Q730
TW-34 94V-1

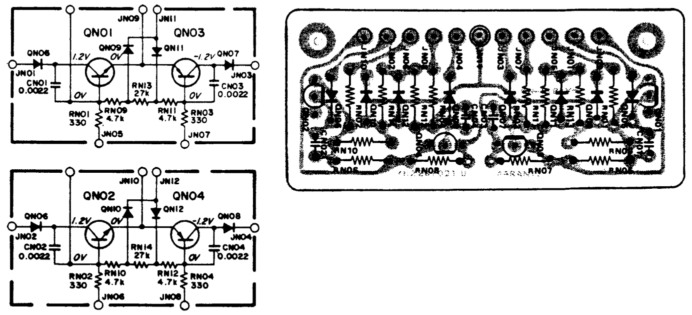
### 7.4 Ripple Filter Assembly (PC00) Schematic Diagram and Component Locations


PC00
QM32
QM31
CM32 100/25V
CM31 100/25V
RM51
RM52
RM53
RM54
RM55
RM56
JM01
JM02
JM03
JM04
JM05
JM06

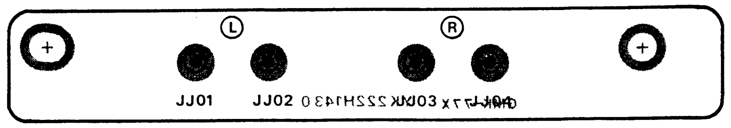
### 7.5 Loudness Assembly (PF00) Schematic Diagram and Component Locations


PF00
LOUDNESS
CF01 0.047
CF02 0.047
CF03 0.068
CF04 0.068
RF01 8.2k
RF02 8.2k
SF01

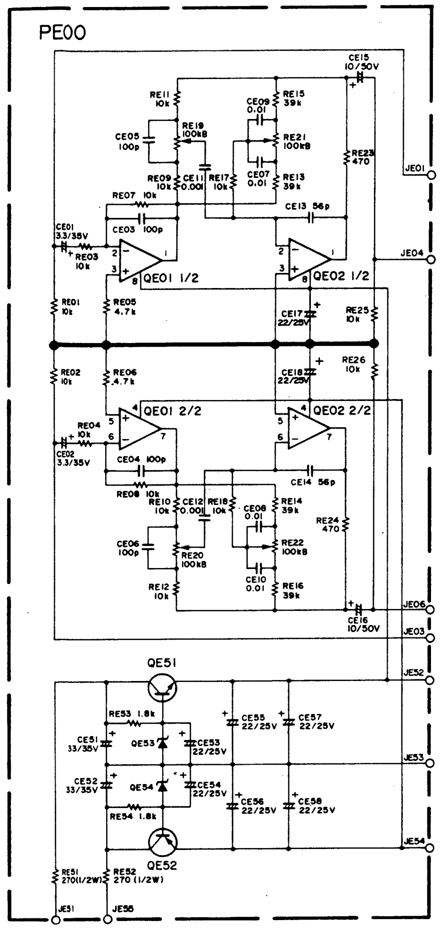
### 7.6 ASO Protector Assembly (PN00)
### Schematic Diagram and Component Locations

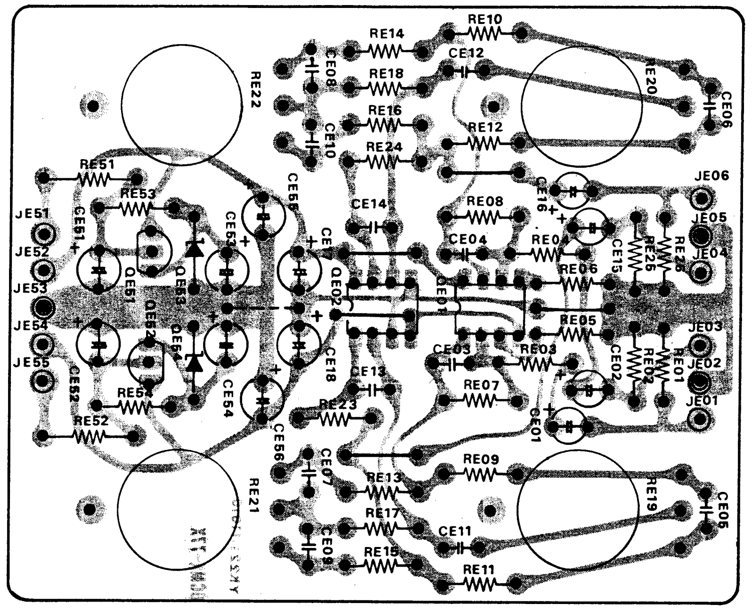

QN01
QN02
QN03
QN04

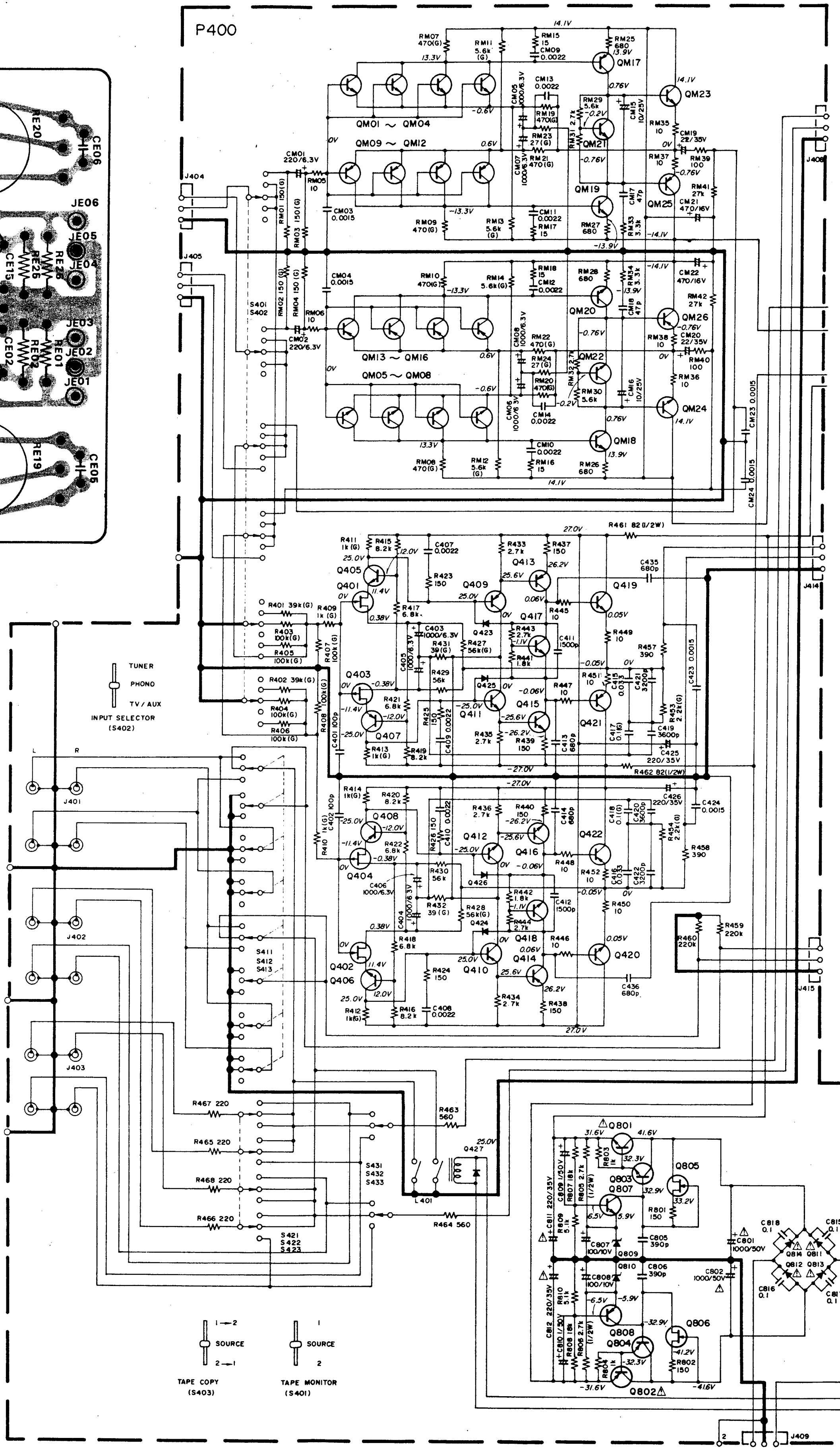
### 7.7 Test Point Assembly (PJ00)
### Schematic Diagram and Component Locations


L
R
JJ01
JJ02

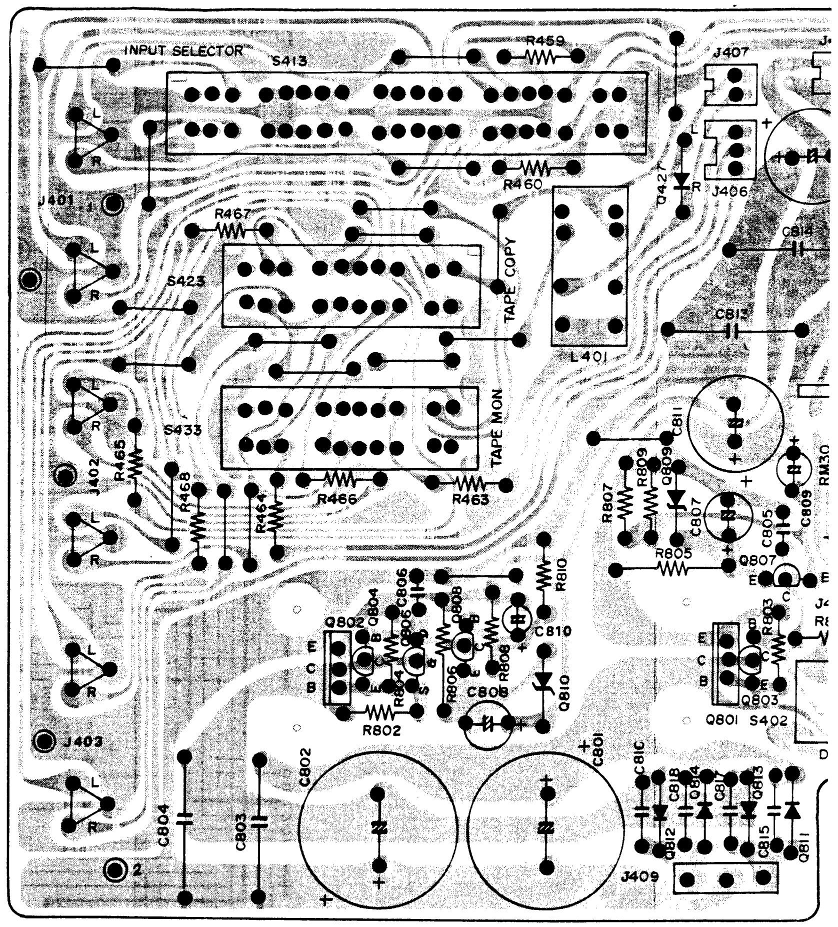
## 7.8 Tone Amp. Assembly (PE01) Schematic Diagram and Component Locations


PE00
QE01 1/2
QE02 1/2
QE01 2/2
QE02 2/2
QE51
QE52
JE01
JE04
JE06
JE03
JE52
JE53
JE54
JE51
JE56

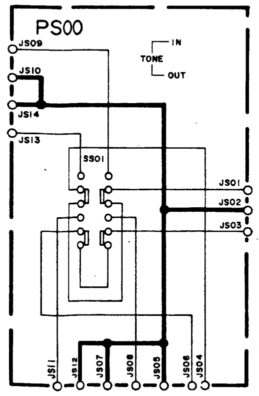

RE10
RE14
RE18
RE16
RE24
RE12
RE22
RE20
RE21
RE19
CE06
CE05
JE06
JE05
JE04
JE03
JE02
JE01
JE51
JE52
JE53
JE54
JE55

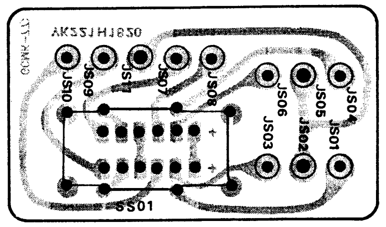

P400
J404
J405
J401
J402
J403
J414
J415
J407
J409
QM01 ~ QM04
QM09 ~ QM12
QM13 ~ QM16
QM05 ~ QM08
INPUT SELECTOR (S402)
TUNER
PHONO
TV / AUX
TAPE COPY (S403)
TAPE MONITOR (S401)
SOURCE
L401

## 7.10 Pre-Amp. Assembly (P400) Schematic Diagram and Component Location

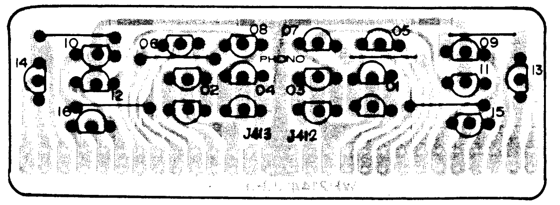

INPUT SELECTOR
S413
S423
S433
R459
R460
R467
R463
R466
J407
J406
J401
J402
J403
J409
L401
TAPE COPY
TAPE MON
S402

## 7.9 Tone On-Off Assembly (PS00) Schematic Diagram and Component Locations

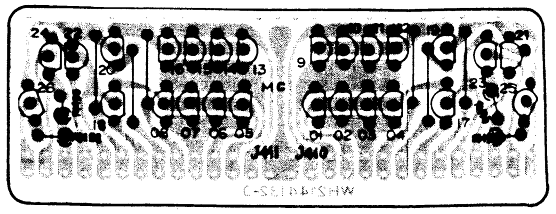

PS00
TONE
IN
OUT
SS01

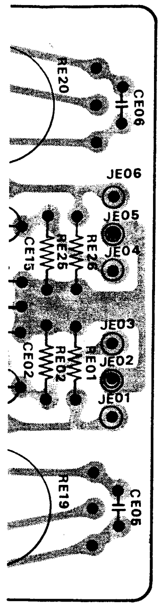


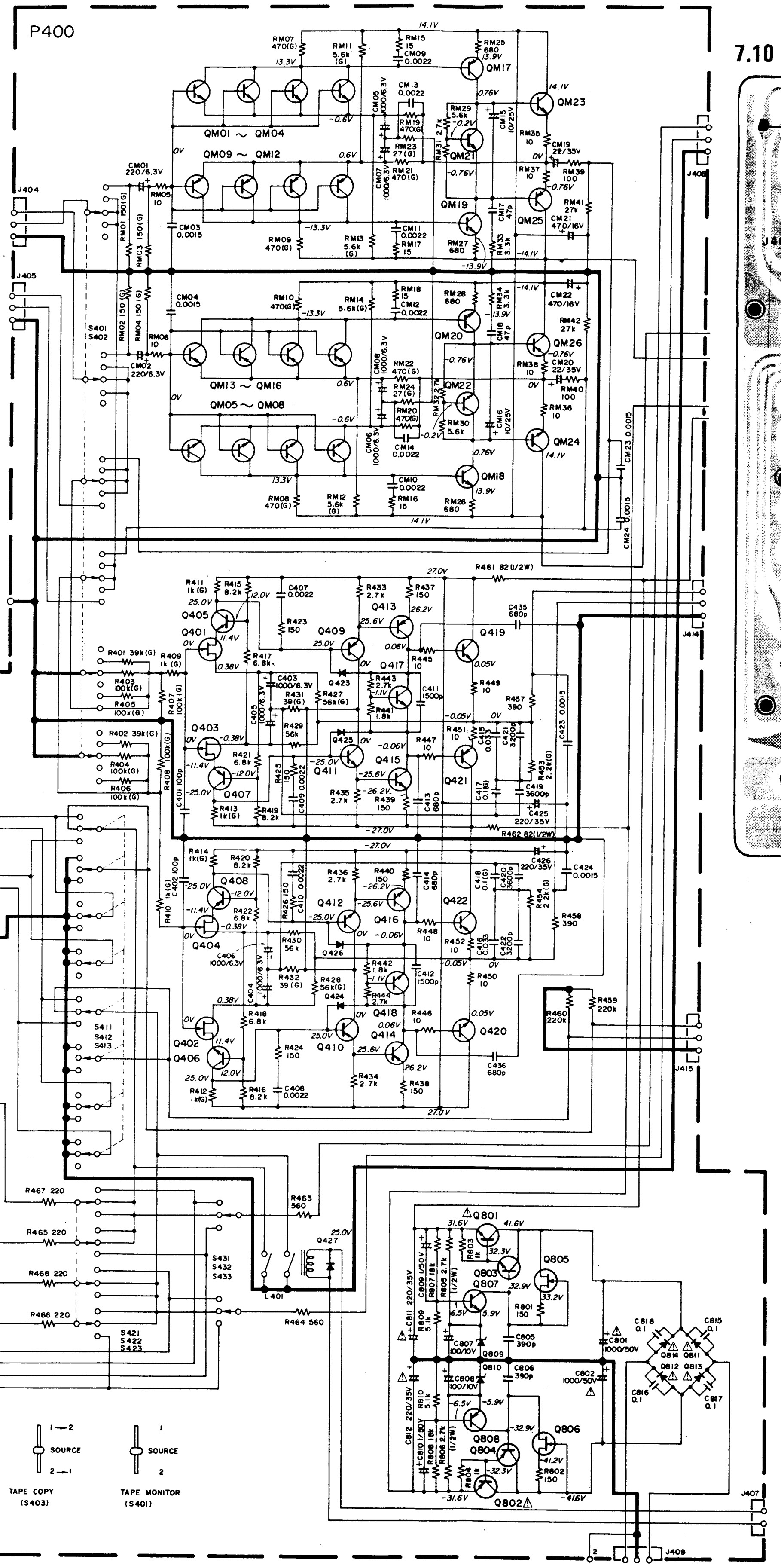
## 7.11 Transistor Block Assembly (P401)
### Schematic Diagram and Component Locations


PHONO
J413
J412

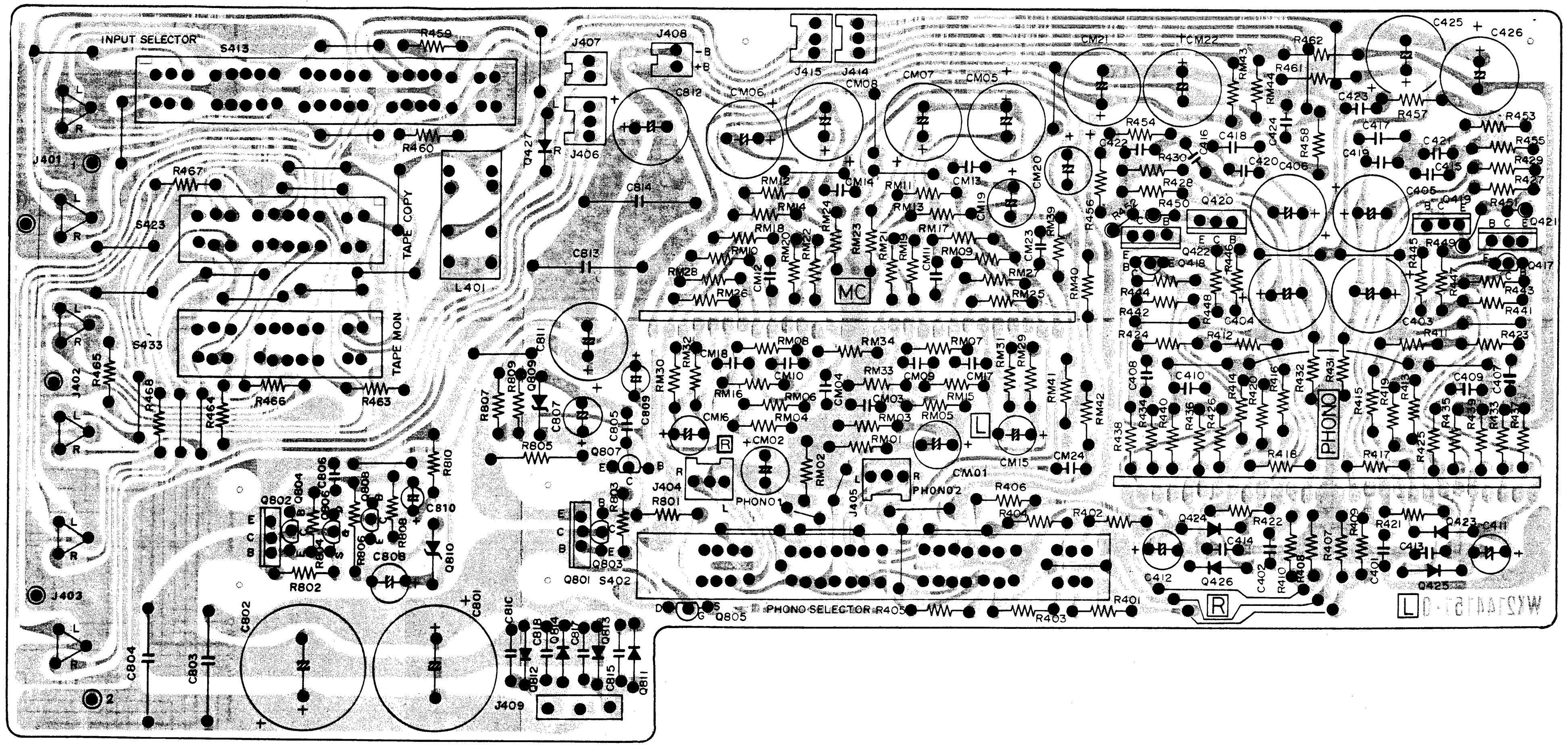
## 7.12 MC Transistor Block Assembly (PM01)
### Schematic Diagram and Component Locations


MC
J411
J410

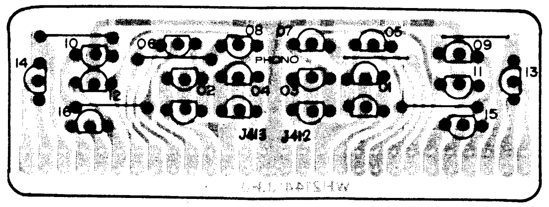

RE20
CE06
JE06
JE05
JE04
JE03
JE02
JE01
RE19
CE06


P400
QM01 ~ QM04
QM09 ~ QM12
QM13 ~ QM16
QM05 ~ QM08
J404
J405
S401
S402
J401
J402
J403
TUNER
PHONO
TV/AUX
INPUT SELECTOR
(S402)
S411
S412
S413
S421
S422
S423
S431
S432
S433
L401
Q427
R467 220
R465 220
R468 220
R466 220
R463 560
R464 560
SOURCE
TAPE COPY
(S403)
TAPE MONITOR
(S401)
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
Q809
Q810
J406
J407
J408
J409
J414
J415

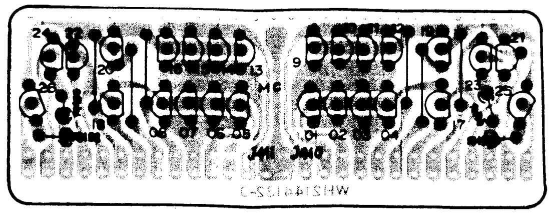
## 7.10 Pre-Amp. Assembly (P400) Schematic Diagram and Component Locations


INPUT SELECTOR
S413
S423
S433
J401
J402
J403
J404
J405
J406
J407
J408
J409
J414
J415
TAPE COPY
TAPE MON
L401
MC
PHONO
PHONO1
PHONO2
PHONO SELECTOR
S402
L
R
1
2

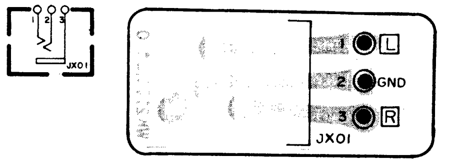
## 7.11 Transistor Block Assembly (P401) Schematic Diagram and Component Locations


PHONO
J413
J412

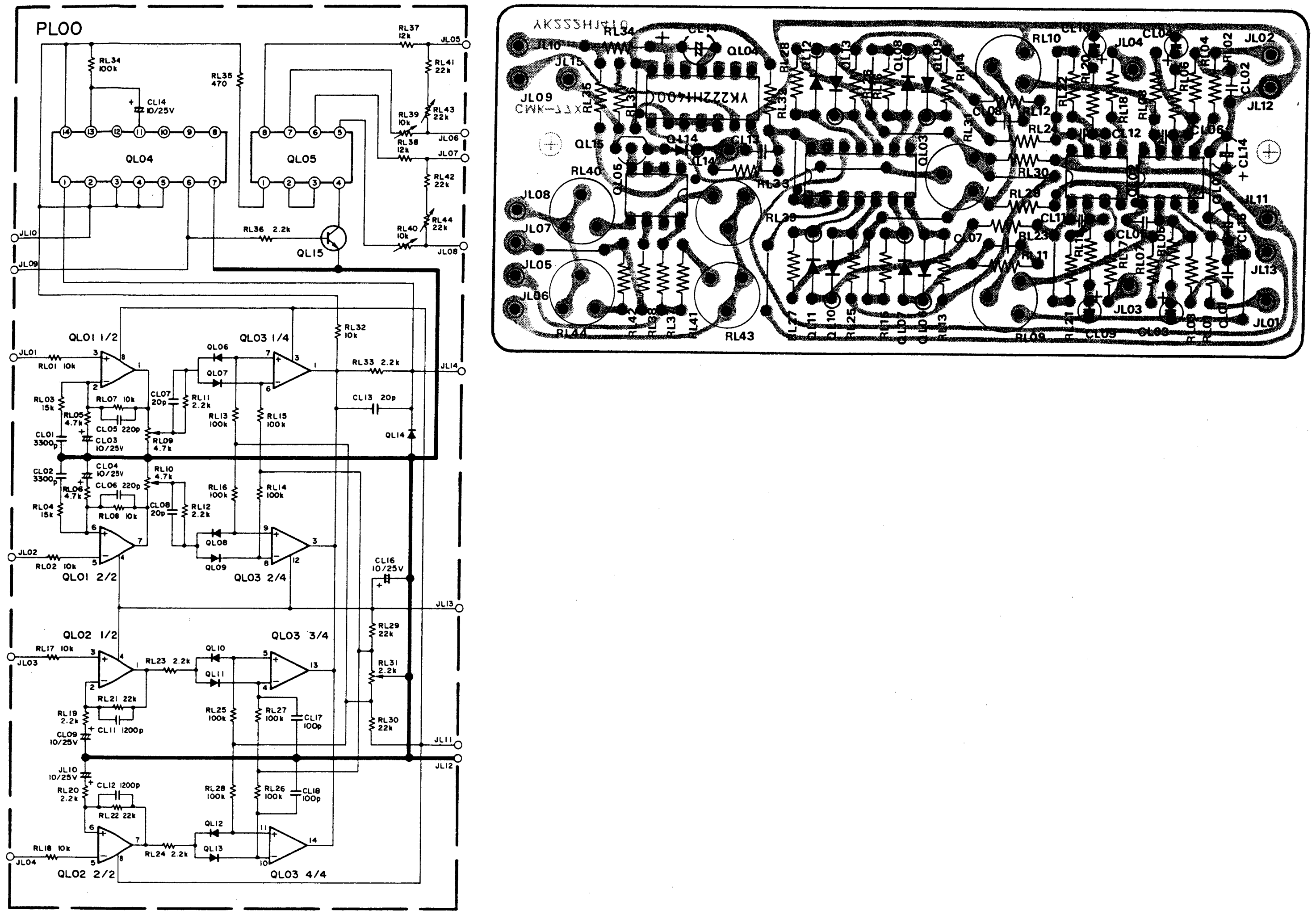
## 7.12 MC Transistor Block Assembly (PM01) Schematic Diagram and Component Locations



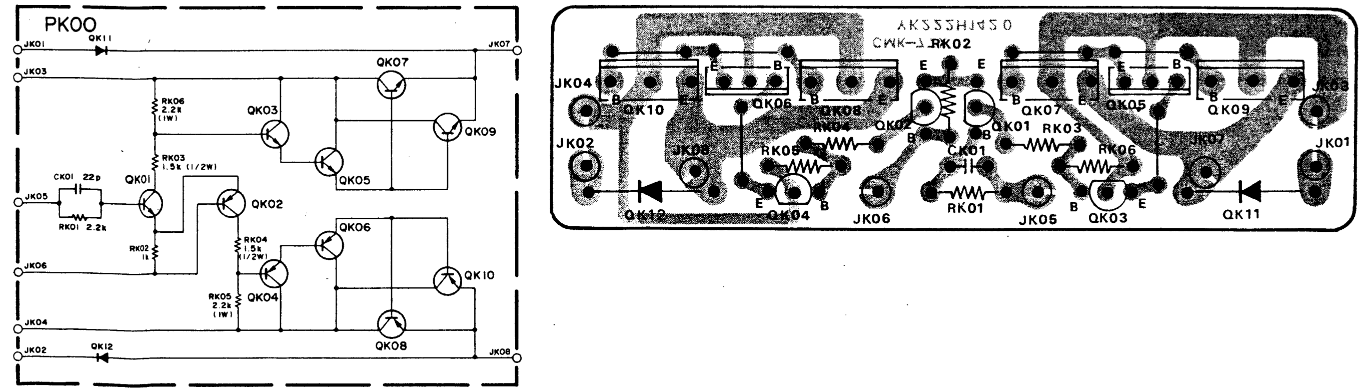
## 7.13 Head Phone Assembly (PX00) Schematic Diagram and Component Locations


JX01
1 L
2 GND
3 R

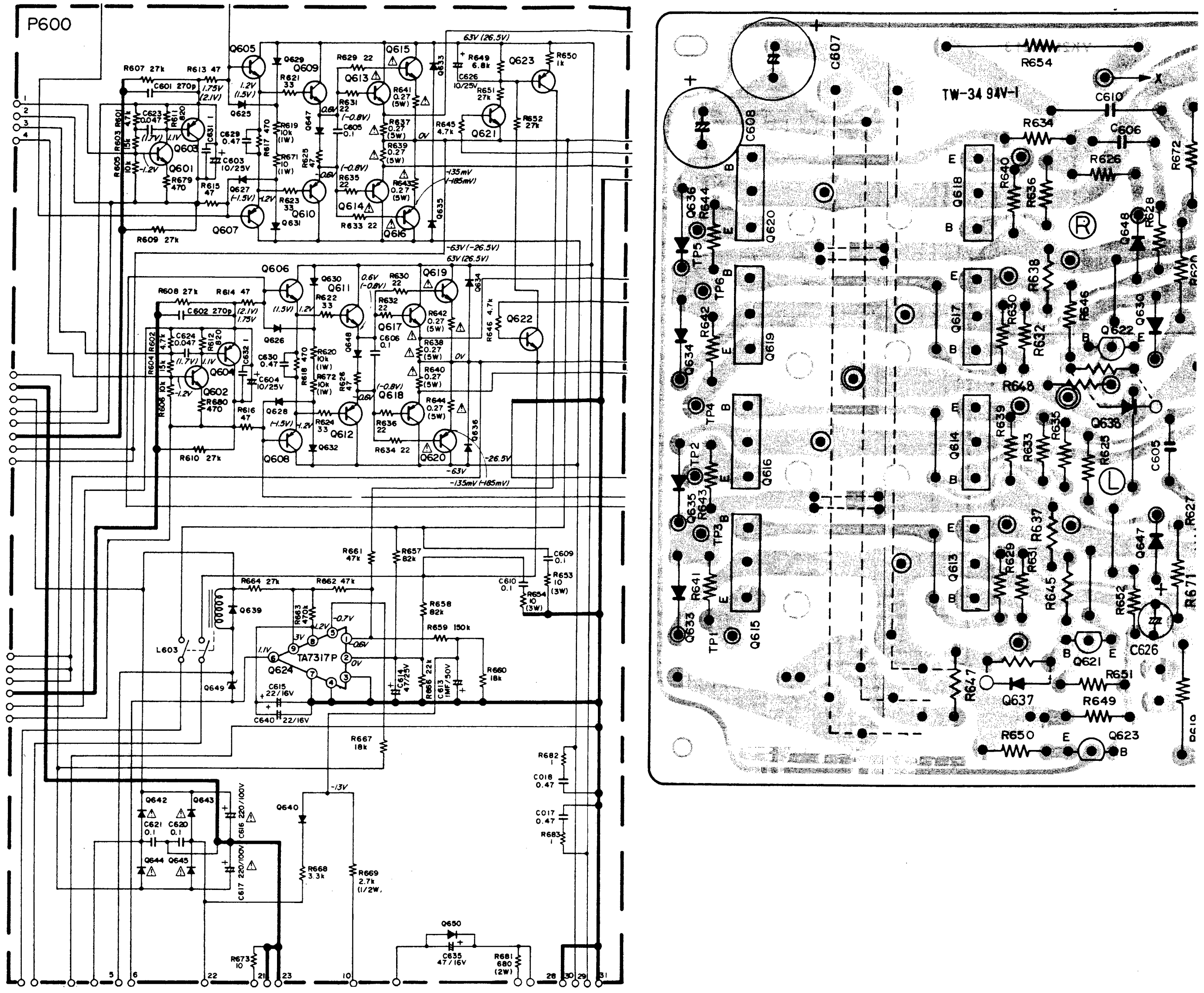
## 7.14 A-B Detector Assembly (PL00) Schematic Diagram and Component Locations


PL00
QL04
QL05
QL15
QL01 1/2
QL01 2/2
QL02 1/2
QL02 2/2
QL03 1/4
QL03 2/4
QL03 3/4
QL03 4/4
JL01
JL02
JL03
JL04
JL05
JL06
JL07
JL08
JL09
JL10
JL11
JL12
JL13
JL14

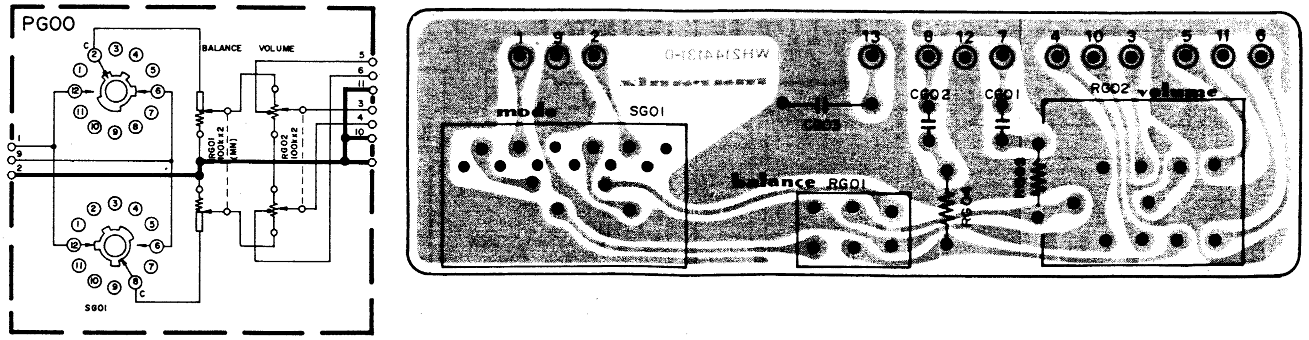
## 7.15 A-B Power Switch Assembly (PK00) Schematic Diagram and Component Locations

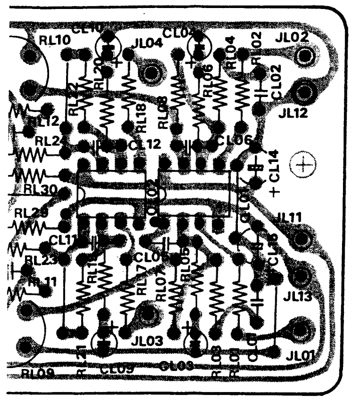

PK00
QK01
QK02
QK03
QK04
QK05
QK06
QK07
QK08
QK09
QK10
QK11
QK12
JK01
JK02
JK03
JK04
JK05
JK06
JK07
JK08

## 7.16 Power Amp. Assembly (P600) Schematic Diagram and Component Locations

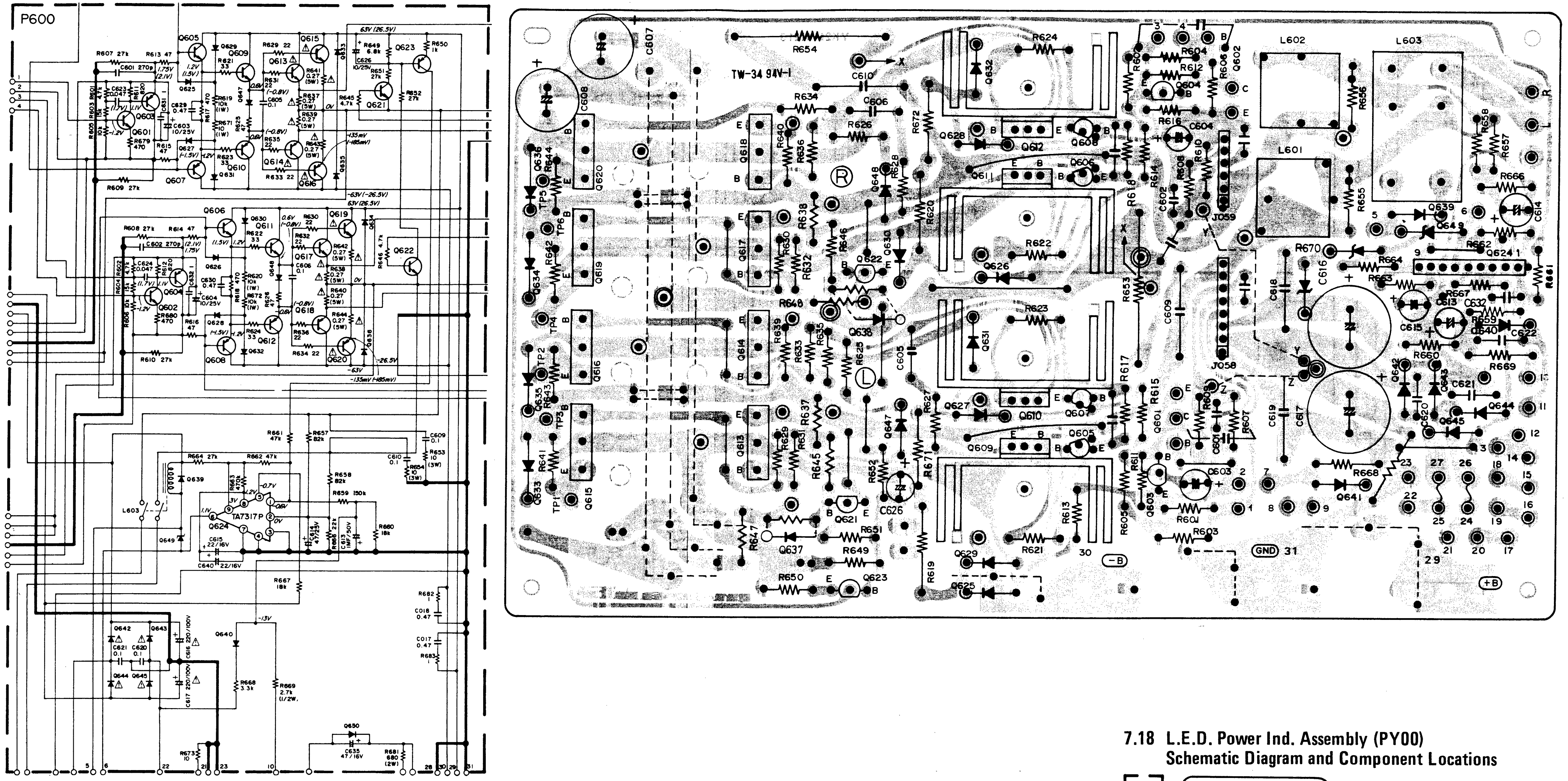

P600
TA7317P
TW-34 94V-1
TP1
TP2
TP3
TP4
TP5
TP6

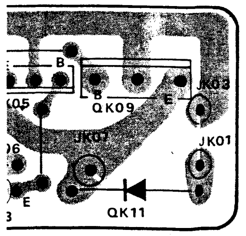
## 7.17 Mode/Balance/Vol. Assembly (PG00) Schematic Diagram and Component Locations


PG00
BALANCE
VOLUME
SG01
RG01
RG02
mode
balance
volume

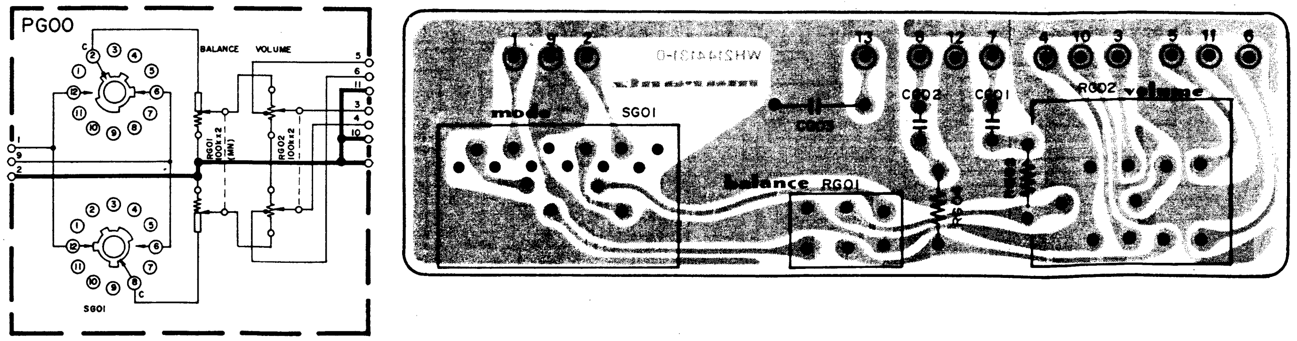

RL10
JL04
JL02
JL12
RL12
RL2
RL30
CL12
+CL14
JL11
JL13
JL03
JL01
RL09
CL09

### 7.16 Power Amp. Assembly (P600) Schematic Diagram and Component Locations


P600
Q605
Q609
Q615
Q623
Q601
Q603
Q607
Q610
Q614
Q616
Q606
Q611
Q619
Q622
Q602
Q604
Q608
Q612
Q617
Q618
Q620
Q639
Q624
TA7317P
Q649
L603
Q642
Q643
Q644
Q645
Q640
Q650
TW-34 94V-1
R654
C610
R634
C606
R624
L602
L603
L601
C607
C608
J059
J058
R670
R622
R623
R621
R650
R649
Q623
Q621
Q637
Q625
Q629
GND 31
+B
-B

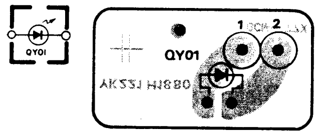

QK09
JK03
JK01
JK07
QK11

### 7.17 Mode/Balance/Vol. Assembly (PG00) Schematic Diagram and Component Locations


PG00
BALANCE
VOLUME
SG01
mode
balance
RG01
RG02
volume
CG02
CG01

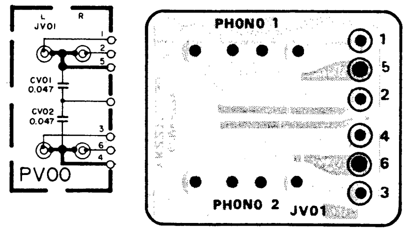
### 7.18 L.E.D. Power Ind. Assembly (PY00)

### Schematic Diagram and Component Locations


QY01
AK53J H1880
1
2

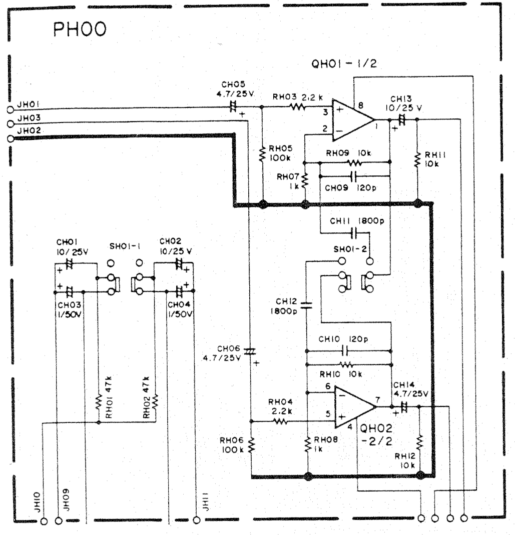
### 7.19 Phone Input Assembly (PV00)

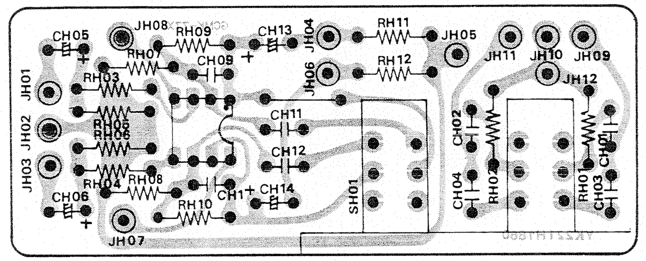
### Schematic Diagram and Component Locations


JV01
CV01 0.047
CV02 0.047
PV00
PHONO 1
PHONO 2
JV01
1
5
2
4
6
3

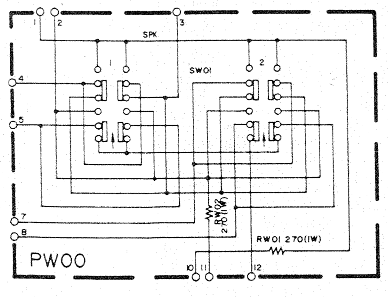
# 7. DIAGRAM AND COMPONENT LOCATIONS

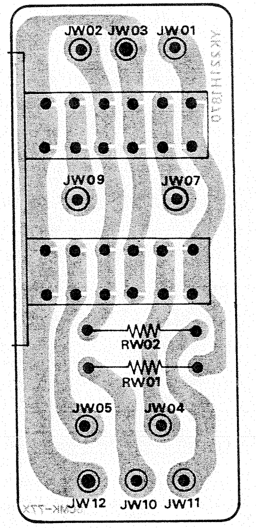
## 7.1 Filter Assembly (PH00) Schematic Diagram and Component Locations


PH00
QH01-1/2
QH02-2/2
SH01-1
SH01-2
JH01
JH02
JH03

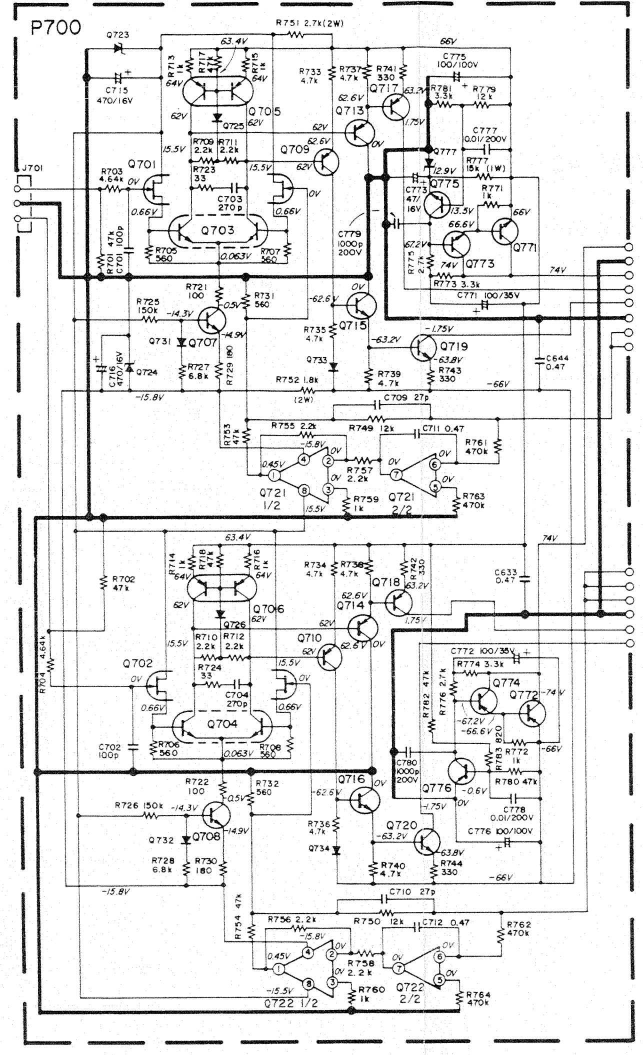

CH05
JH08
RH09
CH13
JH04
RH11
JH05
JH11
JH10
JH09
JH12
JH01
JH02
JH03
JH06
CH11
CH12
CH14
SH01
CH02
CH04
RH02
RH01
CH03
CH06
RH10
JH07

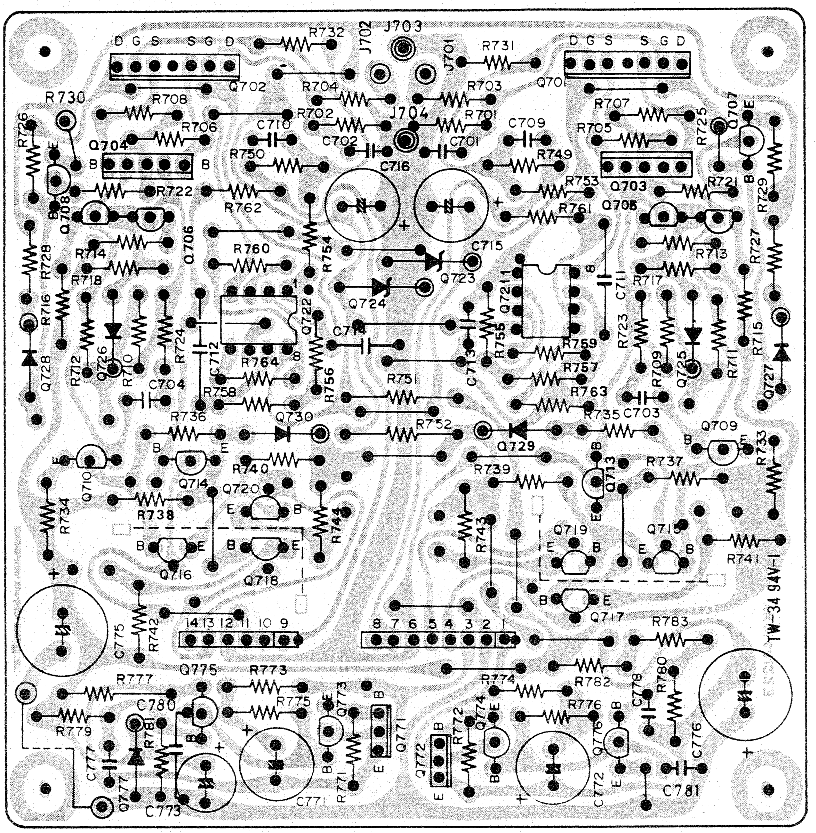
## 7.2 Speaker Switch Assembly (PW00) Schematic Diagram and Component Locations


SPK
SW01
RW01 270(1W)
RW02
PW00

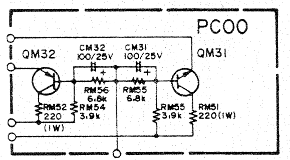

JW02
JW03
JW01
JW09
JW07
RW02
RW01
JW05
JW04
JW12
JW10
JW11

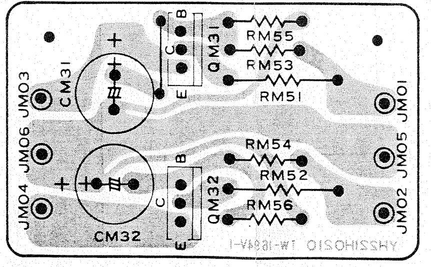
## 7.3 Voltage Amp. Assembly (P700) Schematic Diagram and Component Locations


P700
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
Q709
Q710
Q713
Q714
Q715
Q716
Q717
Q718
Q719
Q720
Q721
Q722
Q773
Q774
Q775
Q776
J701

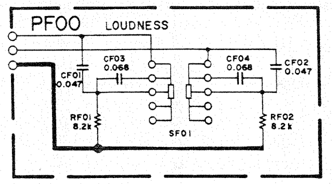

J703
J702
J701
J704
R730
R731
R732
Q701
Q702
Q703
Q704
Q705
Q706
Q707
Q708
C716
C715
Q723
Q724
Q729
Q730
Q709
Q710
Q713
Q714
Q715
Q716
Q717
Q718
Q719
Q720
Q775
C775
C780
C773
C777
C771
C772
C776
C781
R741
R783
TW-34 94V-1

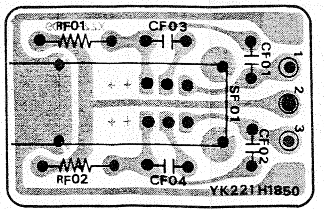
## 7.4 Ripple Filter Assembly (PC00) Schematic Diagram and Component Locations


PC00
QM32
QM31
CM32 100/25V
CM31 100/25V
RM56 6.8k
RM53 6.8k
RM52 220 (1W)
RM54 3.9k
RM55 3.9k
RM51 220(1W)

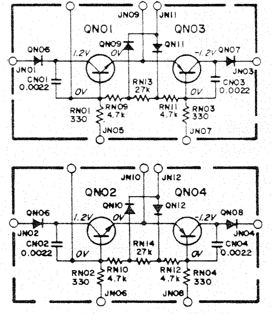

CM31
CM32
QM31
QM32
RM55
RM53
RM51
RM54
RM52
RM56
JM03
JM06
JM04
JM01
JM05
JM02

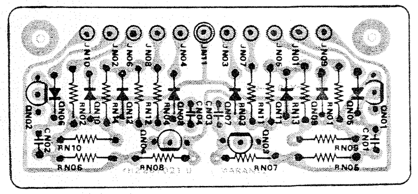
## 7.5 Loudness Assembly (PF00) Schematic Diagram and Component Locations


PF00
LOUDNESS
CF01 0.047
CF03 0.068
CF04 0.068
CF02 0.047
RF01 8.2k
RF02 8.2k
SF01

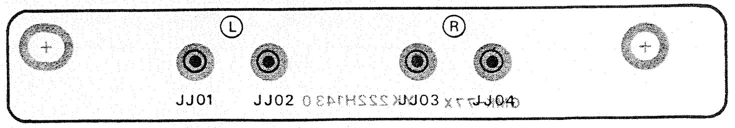

RF01
CF03
CF01
SF01
CF02
RF02
CF04
YK221H1850

## 7.6 ASO Protector Assembly (PN00) Schematic Diagram and Component Locations

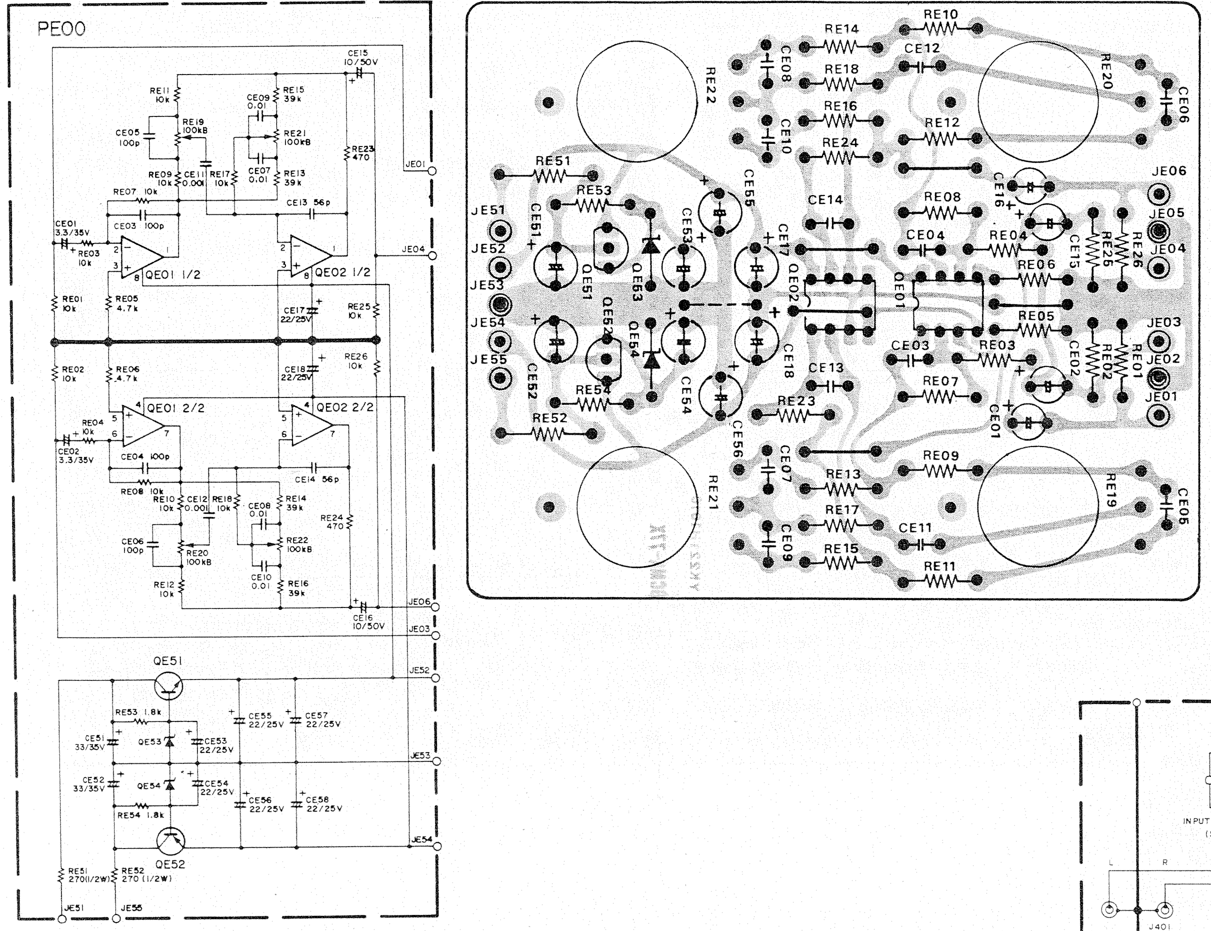

QN01
QN03
QN02
QN04


RN10
RN06
RN08
RN07
RN05

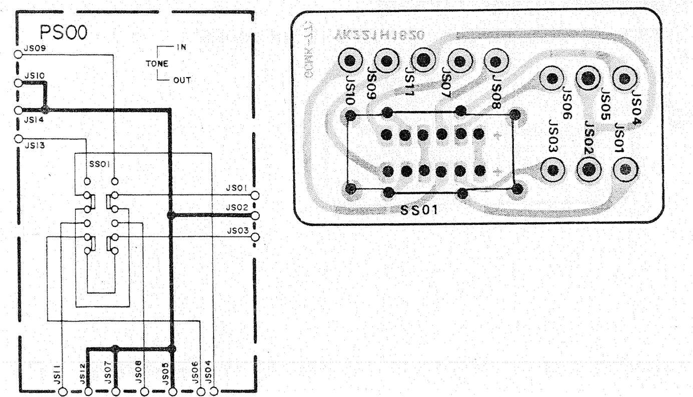
## 7.7 Test Point Assembly (PJ00) Schematic Diagram and Component Locations

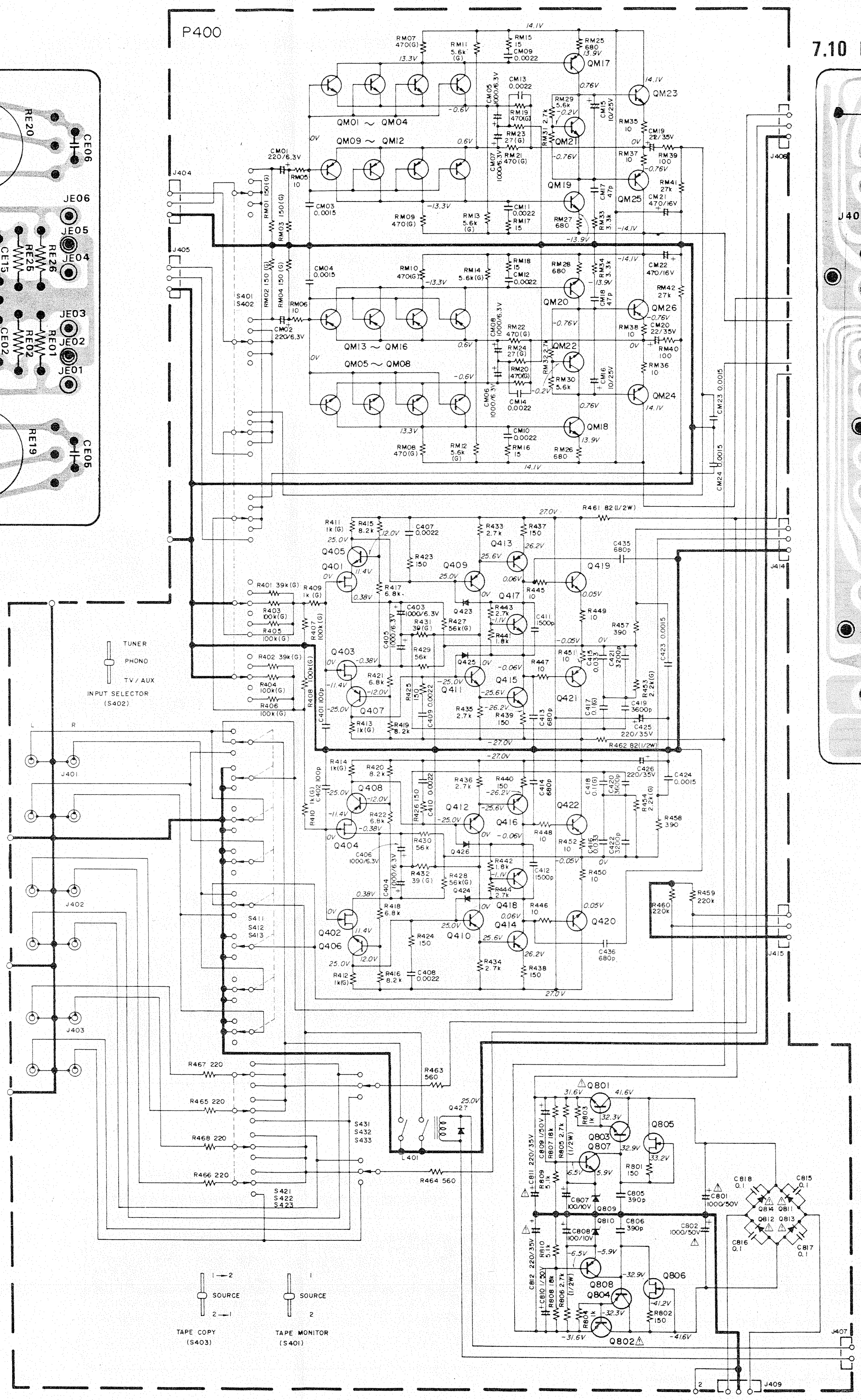

L
R
JJ01
JJ02
JJ03
JJ04

## 7.8 Tone Amp. Assembly (PE01) Schematic Diagram and Component Locations

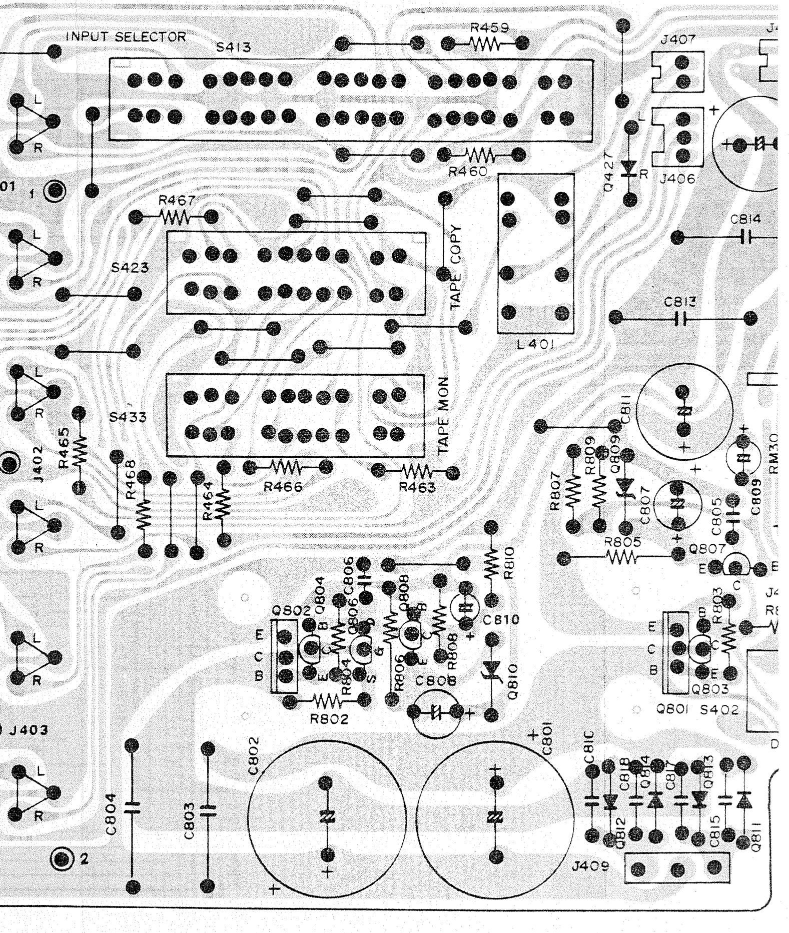

PE00
QE01 1/2
QE02 1/2
QE01 2/2
QE02 2/2
QE51
QE52
QE53
QE54
JE01
JE02
JE03
JE04
JE05
JE06
JE51
JE52
JE53
JE54
JE55
JE56
RE51
RE52
RE53
RE54
CE51
CE52
CE53
CE54
CE55
CE56
RE10
RE14
RE18
RE16
RE24
RE12
RE08
RE04
RE06
RE05
RE03
RE07
RE09
RE13
RE17
RE15
RE11
RE19
RE20
RE21
RE22
RE23
CE12
CE14
CE13
CE11
CE17
CE18
QE01
QE02

## 7.9 Tone On-Off Assembly (PS00) Schematic Diagram and Component Locations

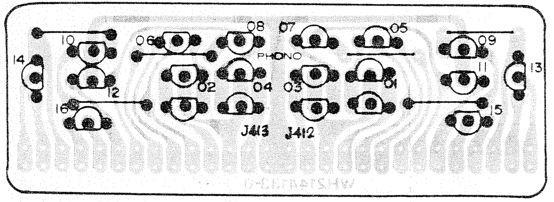

PS00
TONE
IN
OUT
SS01
JS01
JS02
JS03
JS04
JS05
JS06
JS07
JS08
JS09
JS10
JS11
JS12
JS13
JS14


P400
J404
J405
J406
J407
J409
J414
J415
J401
J402
J403
QM01 ~ QM04
QM09 ~ QM12
QM13 ~ QM16
QM05 ~ QM08
QM17
QM18
QM19
QM20
QM21
QM22
QM23
QM24
QM25
QM26
Q401
Q402
Q403
Q404
Q405
Q406
Q407
Q408
Q409
Q410
Q411
Q412
Q413
Q414
Q415
Q416
Q417
Q418
Q419
Q420
Q421
Q422
Q423
Q424
Q425
Q426
Q427
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
Q809
Q810
Q811
Q812
Q813
Q814
TUNER
PHONO
TV / AUX
INPUT SELECTOR
(S402)
S401
S402
S411
S412
S413
S421
S422
S423
S431
S432
S433
L401
R461 82Ω (2W)
R462 82Ω (2W)
R467 220
R465 220
R468 220
R466 220
R463 560
R464 560
R459 220k
R460 220k
SOURCE
TAPE COPY
(S403)
TAPE MONITOR
(S401)

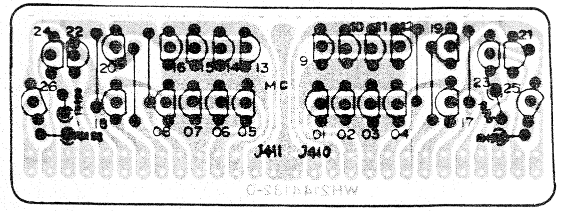
## 7.10 Pre-Amp. Assembly (P400) Schematic Diagram and Component Location

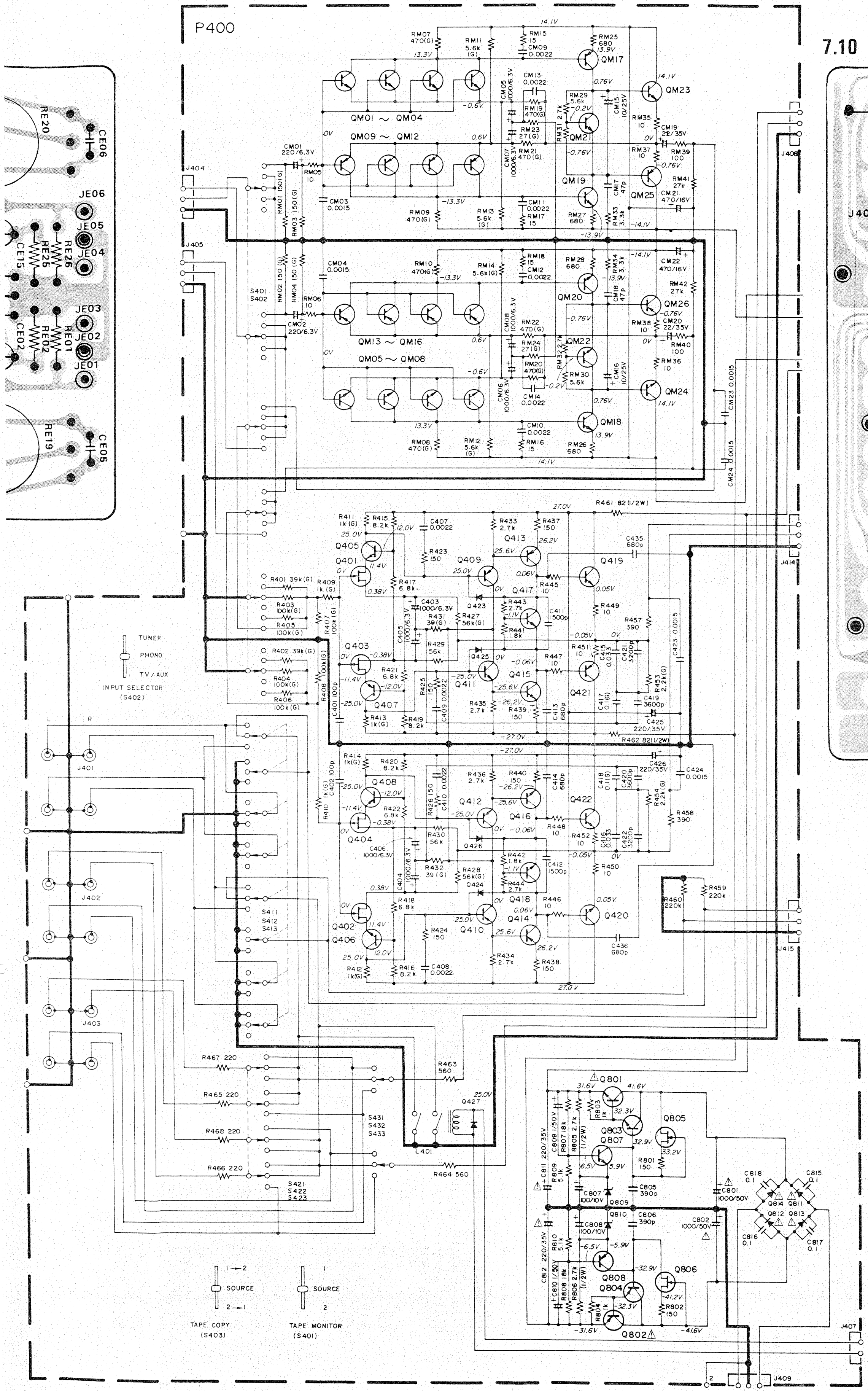

INPUT SELECTOR
S413
R459
J407
J406
R460
Q427
J401
R467
S423
TAPE COPY
L401
C814
C813
S433
TAPE MON
J402
R465
R468
R464
R466
R463
R807
R809
Q809
C807
C811
C809
R805
Q807
R810
C806
Q804
Q808
Q802
R806
R808
C810
C808
Q810
R804
R802
Q801
S402
Q803
J403
C802
C801
C804
C803
C816
C815
Q811
J409

## 7.11 Transistor Block Assembly (P401) Schematic Diagram and Component Locations

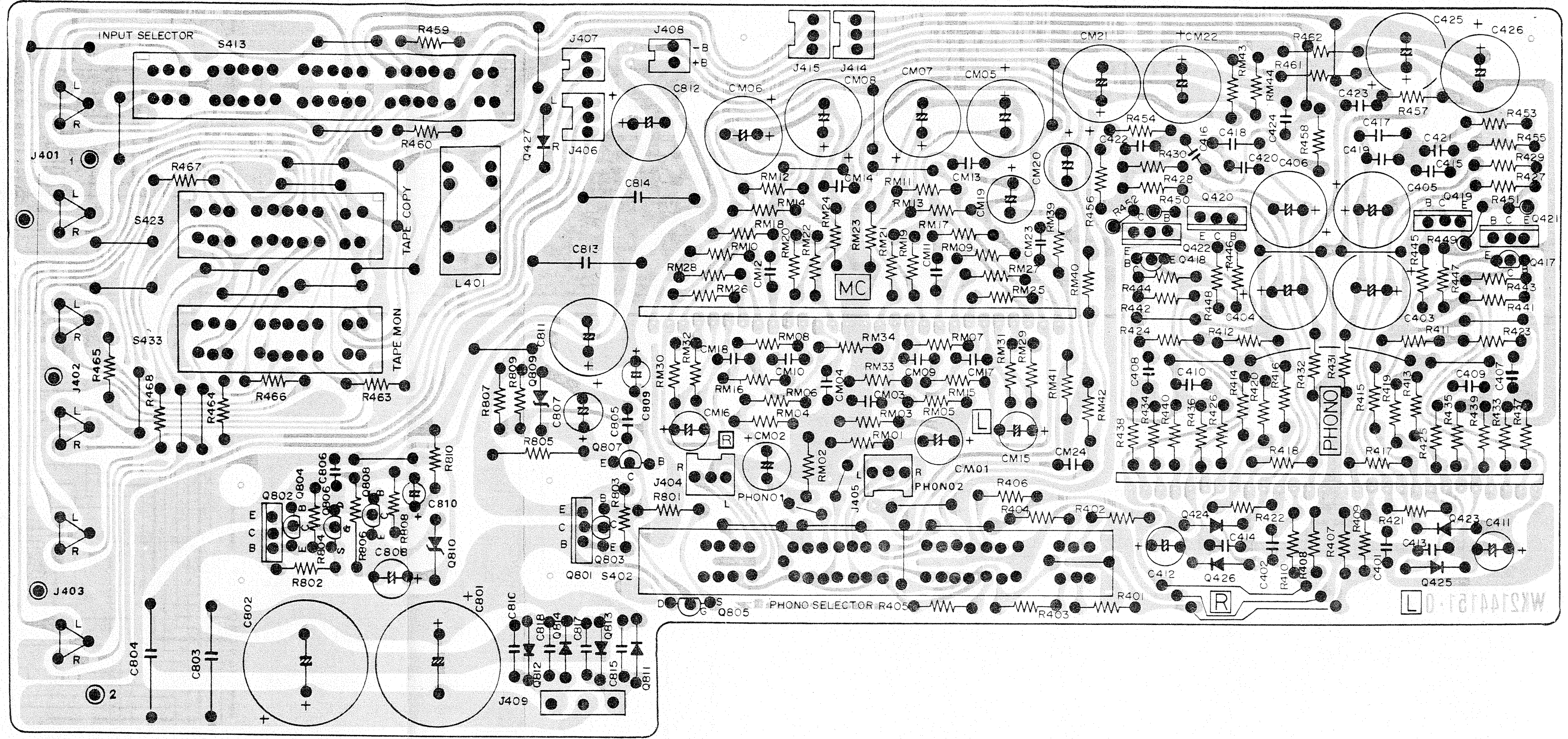

PHONO
J413
J412

## 7.12 MC Transistor Block Assembly (PM01) Schematic Diagram and Component Locations

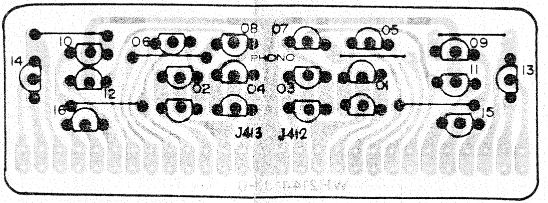

MC
J411
J410


P400
QM01 ~ QM04
QM09 ~ QM12
QM13 ~ QM16
QM05 ~ QM08
J404
J405
J406
J414
J415
J401
J402
J403
J407
J409
TUNER
PHONO
TV / AUX
INPUT SELECTOR (S402)
S401 S402
S411 S412 S413
S431 S432 S433
S421 S422 S423
L401
Q427
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
R461 820/2W
R462 821/2W
R463 560
R464 560
R467 220
R465 220
R468 220
R466 220
1→2 SOURCE 2←1
TAPE COPY (S403)
SOURCE
TAPE MONITOR (S401)
RE20
CE06
JE06
JE05
JE04
RE26
CE15
JE03
JE02
JE01
RE01
CE02
RE19
CE05

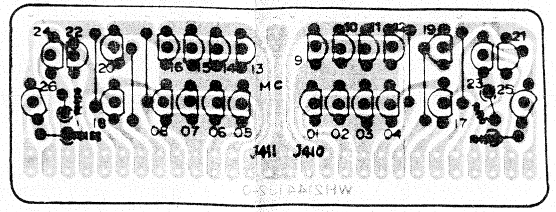
## 7.10 Pre-Amp. Assembly (P400) Schematic Diagram and Component Locations


INPUT SELECTOR
S413
S423
S433
TAPE COPY
TAPE MON
L401
J401
J402
J403
J404
J405
J406
J407
J408
J409
J414
J415
MC
PHONO
PHONO1
PHONO2
PHONO SELECTOR
S402
Q801
Q802
Q803
Q805
L
R
WK21441S1-0

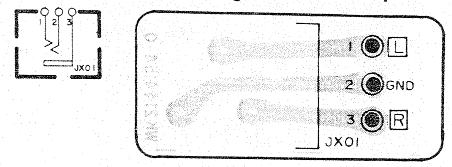
## 7.11 Transistor Block Assembly (P401) Schematic Diagram and Component Locations

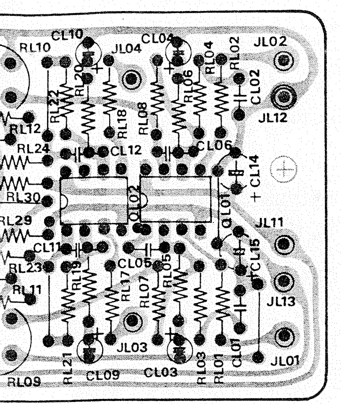

PHONO
J413
J412

## 7.12 MC Transistor Block Assembly (PM01) Schematic Diagram and Component Locations

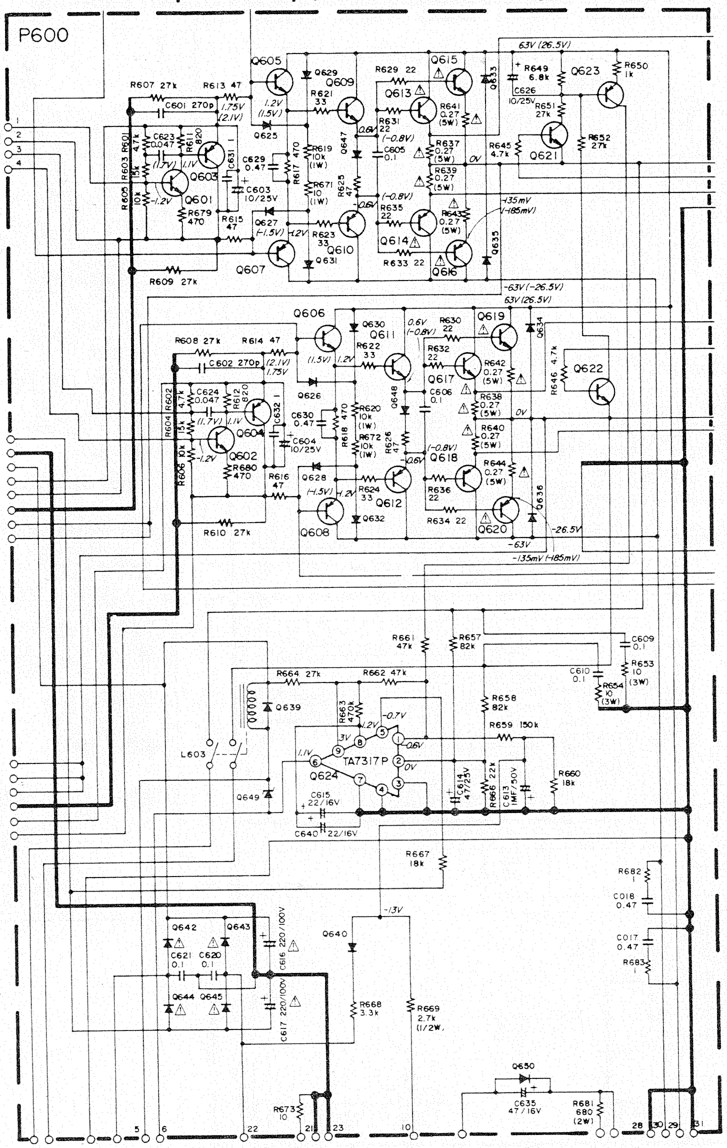

MC
J411
J410

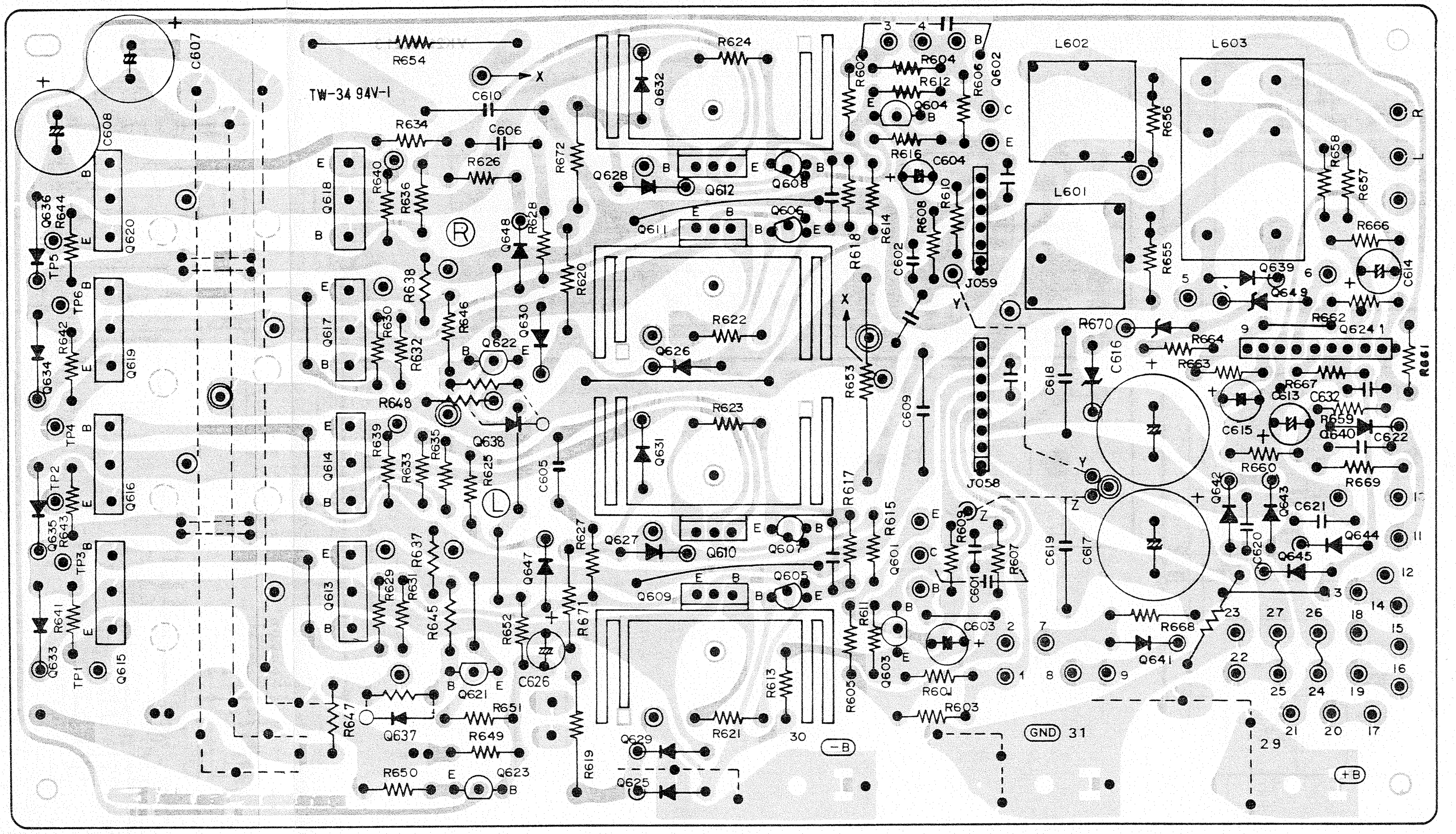
## 7.13 Head Phone Assembly (PX00) Schematic Diagram and Component Locations

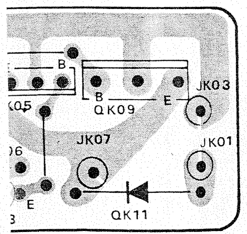

JX01
1 L
2 GND
3 R


CL10
RL10
JL04
CL04
RL04
RL02
JL02
CL02
JL12
RL12
RL24
CL12
CL06
CL14
RL30
QL02
QL01
RL29
JL11
CL11
CL05
CL15
RL23
RL11
JL13
JL03
RL09
CL09
CL03
JL01

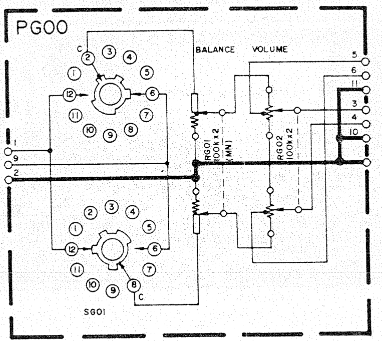
## 7.16 Power Amp. Assembly (P600) Schematic Diagram and Component Locations

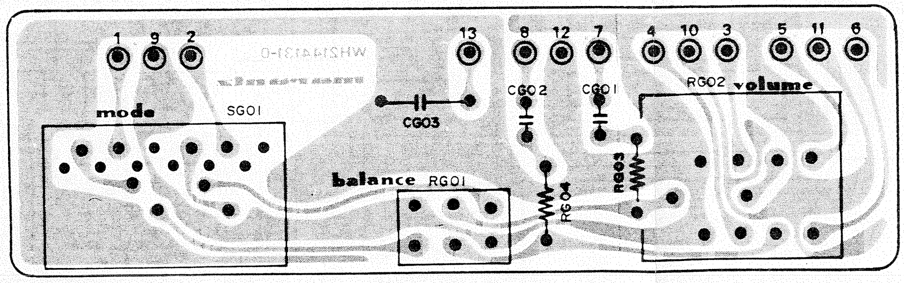

P600
Q605
Q609
Q615
Q613
Q623
Q601
Q603
Q607
Q610
Q614
Q616
Q606
Q611
Q619
Q617
Q622
Q602
Q604
Q608
Q612
Q618
Q620
Q639
TA7317P
Q624
Q649
L603
Q642
Q643
Q644
Q645
Q640
Q650
63V (26.5V)
-63V (-26.5V)


TW-34 94V-1
R654
C607
C608
C610
C606
R634
R624
L602
L603
L601
R626
Q628
Q612
Q608
Q611
Q606
Q618
Q620
Q617
Q619
Q614
Q616
Q613
Q615
Q610
Q609
Q607
Q605
Q627
Q626
R622
R623
Q622
Q630
Q638
Q621
Q637
Q623
Q629
Q625
J059
J058
R670
Q624
Q639
Q649
Q613
Q640
C616
C618
C609
C615
C619
C617
C620
Q642
Q643
Q644
Q645
C621
Q641
R668
R603
R601
GND 31
+B
-B
TP1
TP2
TP3
TP4
TP5
TP6
R
L

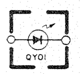

QK09
JK03
JK07
JK01
QK11

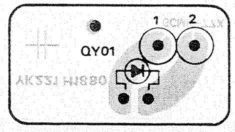
## 7.17 Mode/Balance/Vol. Assembly (PG00) Schematic Diagram and Component Locations


PG00
BALANCE
VOLUME
RG01
RG02
SG01

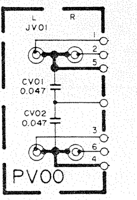

1
9
2
13
8
12
7
4
10
3
5
11
6
mode
SG01
CG03
CG02
CG01
RG02
volume
balance
RG01
RG04
RG03

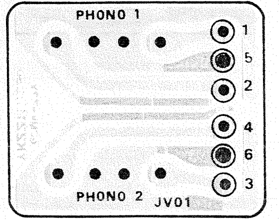
## 7.18 L.E.D. Power Ind. Assembly (PY00) Schematic Diagram and Component Locations



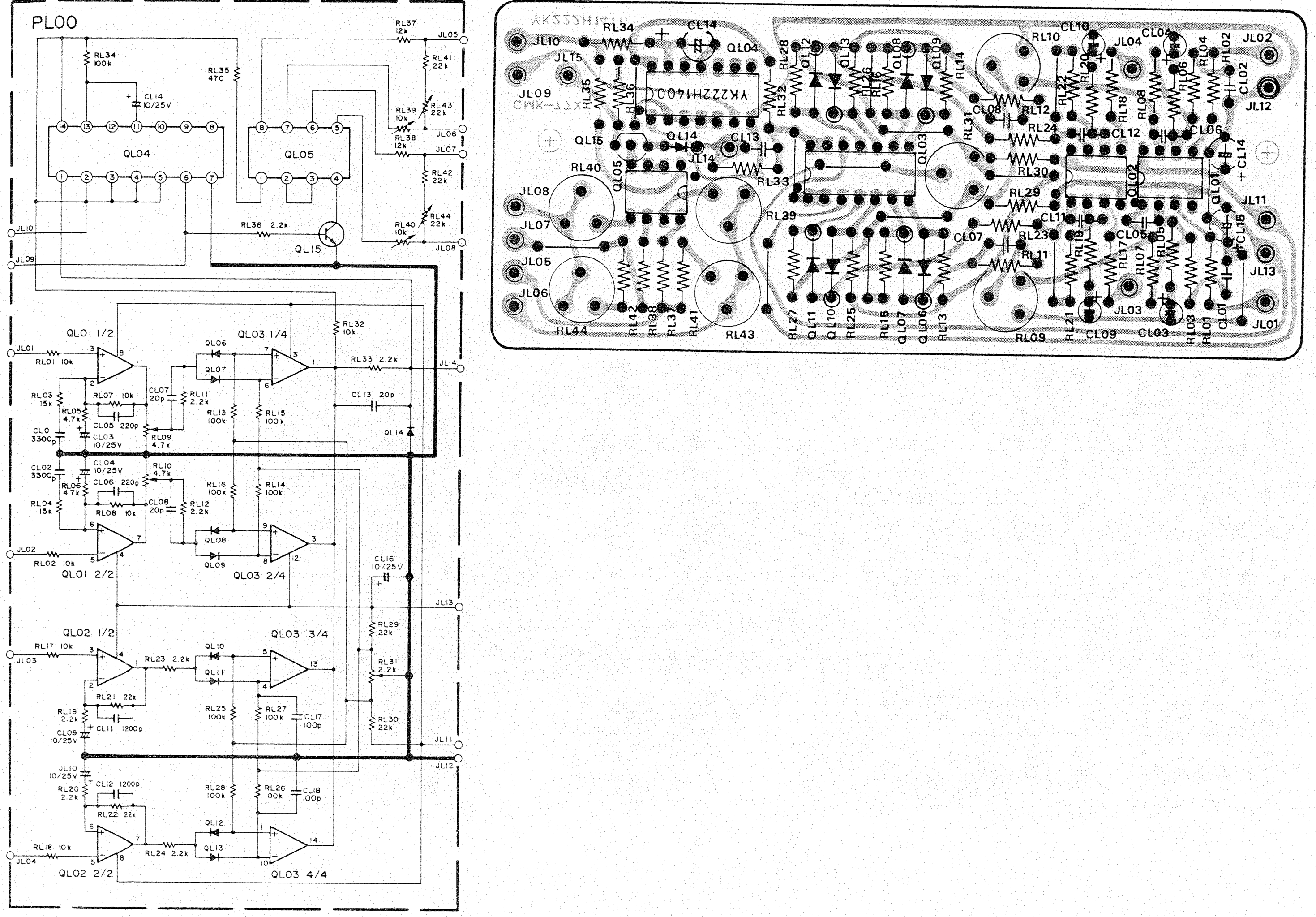


## 7.19 Phone Input Assembly (PV00) Schematic Diagram and Component Locations

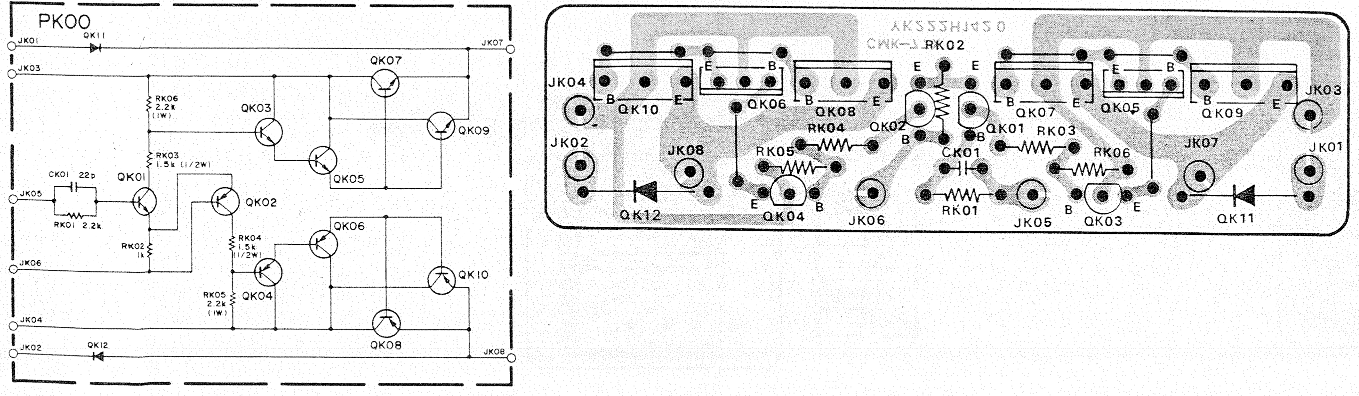

JV01
CV01 0.047
CV02 0.047
PV00


PHONO 1
PHONO 2
JV01
1
5
2
4
6
3

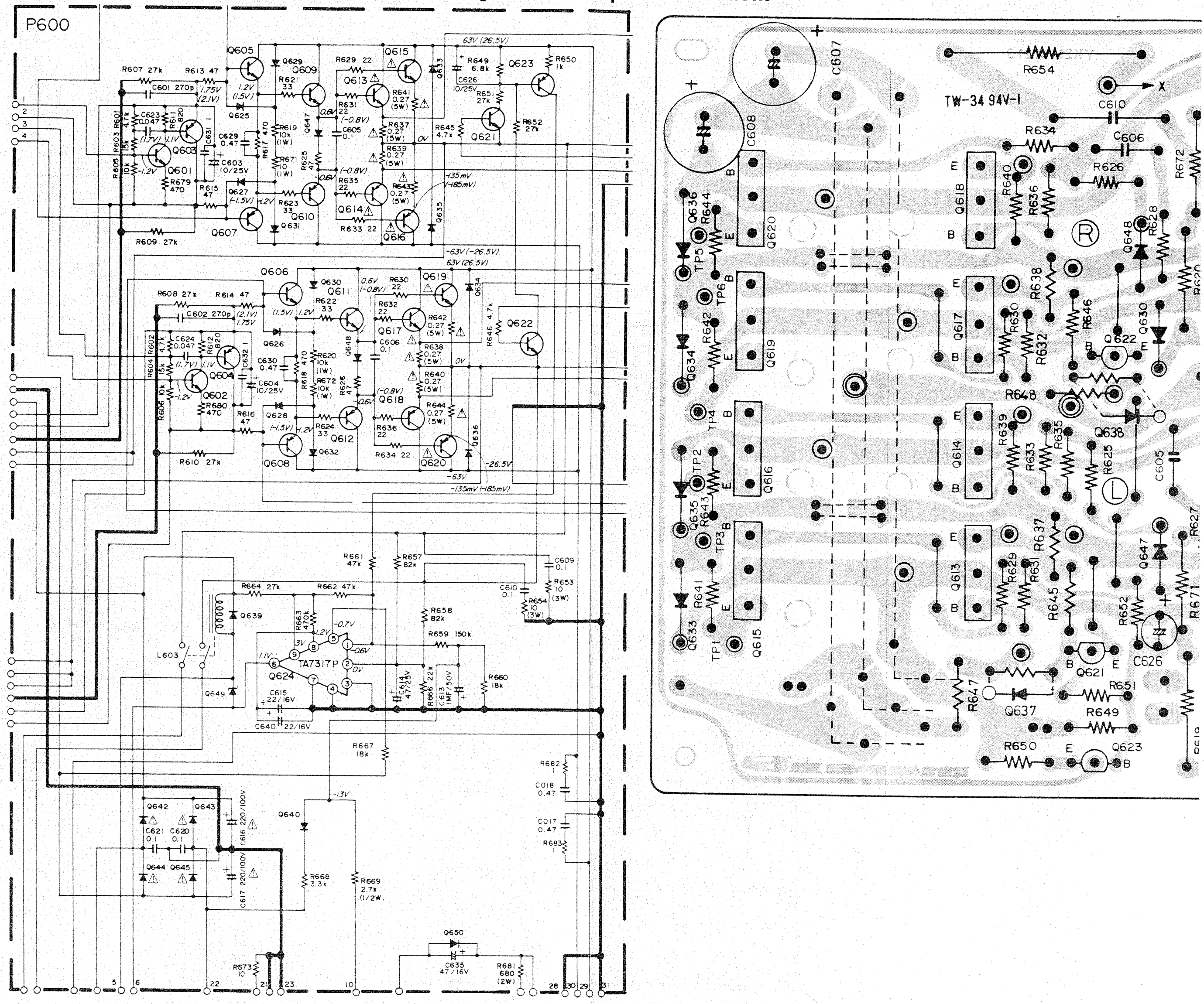
## 7.14 A-B Detector Assembly (PL00) Schematic Diagram and Component Locations


PL00
QL04
QL05
QL15
QL01 1/2
QL01 2/2
QL02 1/2
QL02 2/2
QL03 1/4
QL03 2/4
QL03 3/4
QL03 4/4
CWK-11X
YKZ22H1400

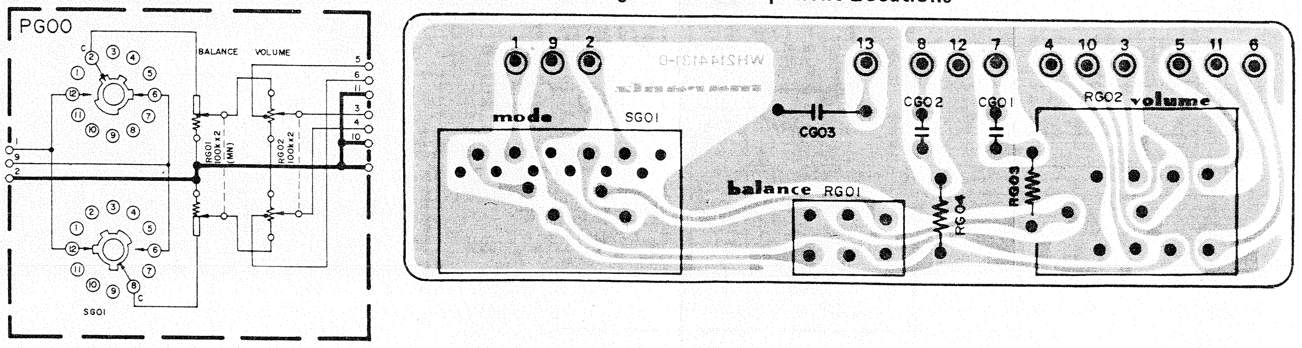
## 7.15 A-B Power Switch Assembly (PK00) Schematic Diagram and Component Locations


PK00
QK01
QK02
QK03
QK04
QK05
QK06
QK07
QK08
QK09
QK10
QK11
QK12

## 7.16 Power Amp. Assembly (P600) Schematic Diagram and Component Locations

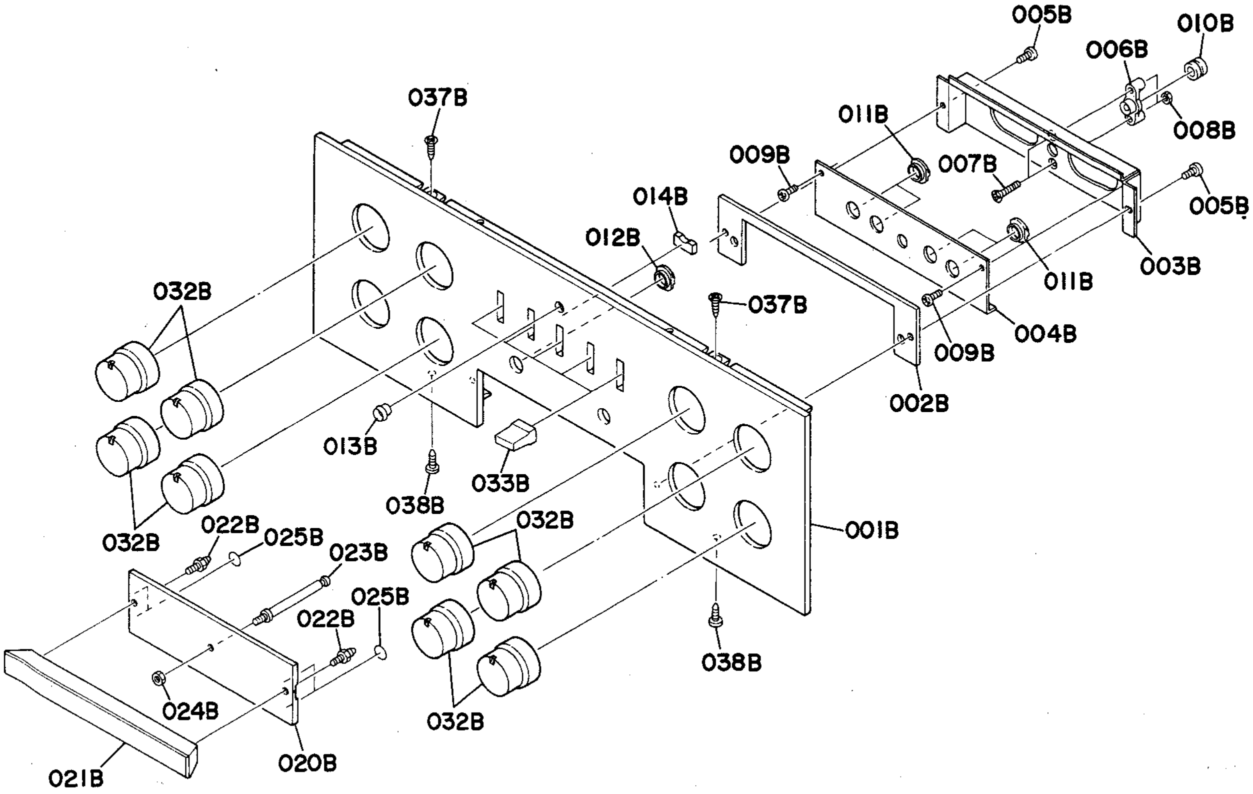

P600
TA7317P
Q624
TW-34 94V-1

## 7.17 Mode/Balance/Vol. Assembly (PG00) Schematic Diagram and Component Locations


PG00
BALANCE
VOLUME
SG01
RG01
RG02
CG01
CG02
CG03
mode
balance
volume

## 8. EXPLODED VIEW AND PARTS LIST

- **[C01-99] Front Panel**

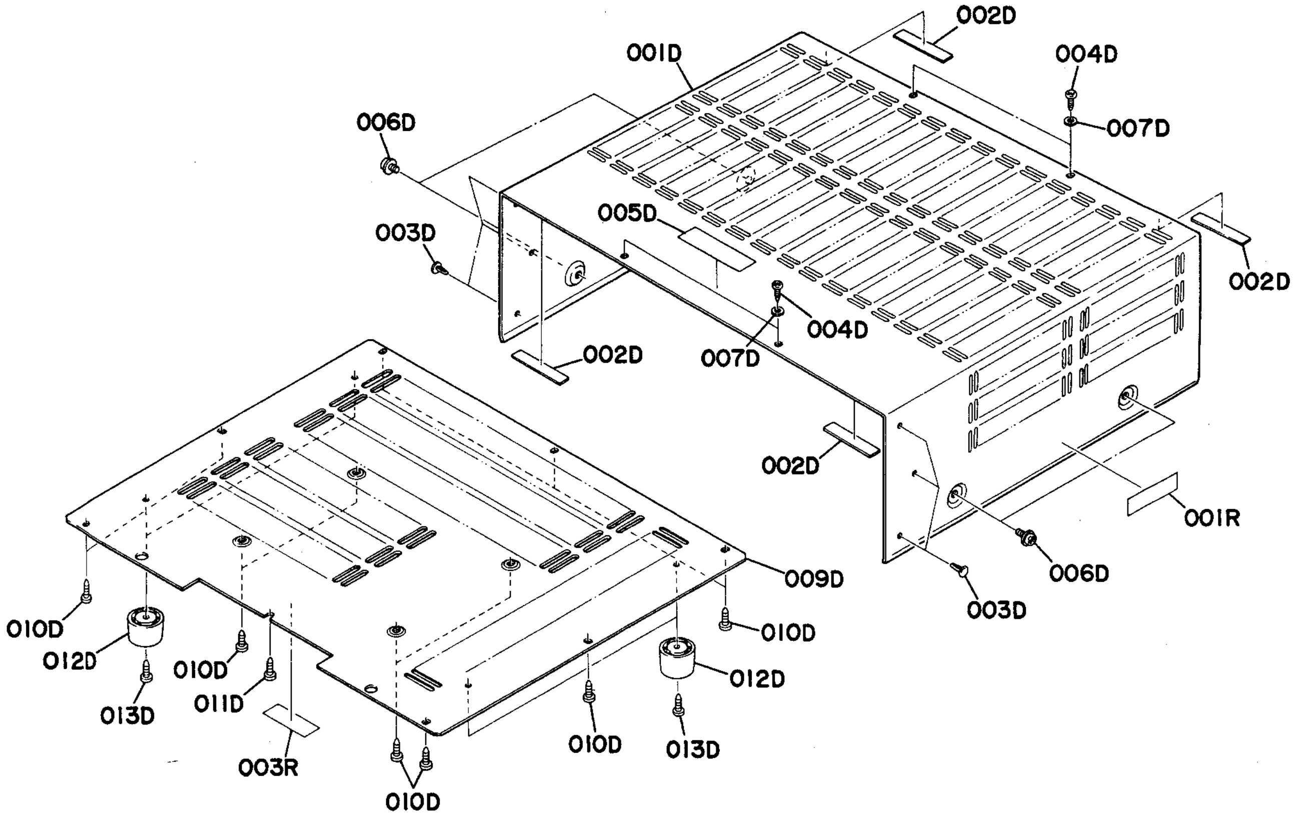

005B
010B
006B
037B
011B
008B
009B
007B
014B
005B
012B
003B
032B
037B
011B
004B
009B
002B
013B
033B
038B
032B
001B
022B
025B
023B
032B
025B
022B
038B
024B
032B
021B
020B

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION | |
|---|---|---|---|---|---|
| A | 1 | 1 | 221H063400 | Front Panel Assembly | |
| 001B | 1 | 1 | 221H063010 | Escutcheon, Front Panel | |
| 002B | 1 | 1 | 2461063030 | Escutcheon, Pocket Frame | |
| 003B | 1 | 1 | 2144160020 | Bracket | |
| 004B | 1 | 1 | 221H063020 | Escutcheon, Pocket Panel | |
| 005B | 2 | 2 | 51060305A9 | P.H.M. Screw | P3 x 5 |
| 006B | 1 | 1 | 2461271010 | Holder | |
| 007B | 2 | 2 | 51042610A0 | F.H.M. Screw | F2.6 x 10 |
| 008B | 2 | 2 | 53112603A0 | Hexagon Nut | |
| 009B | 2 | 2 | 51100204E0 | B.H.M. Screw | B2 x 4 |
| 010B | 1 | 1 | 1143259010 | Bushing, Pin Holder | |
| 011B | 4 | 4 | 2978259110 | Bushing, Push Switch | |
| 012B | 1 | 1 | 2978259010 | Bushing, Power Switch | |
| 013B | 1 | 1 | 2462259010 | Bushing, LED | |

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION | |
|---|---|---|---|---|---|
| B | 1 | 1 | 2461063440 | Pocket Cover Assembly | |
| 020B | 1 | 1 | 2461063050 | Escutcheon, Pocket Cover | |
| 021B | 1 | 1 | 2461253210 | Handle | |
| 022B | 2 | 2 | 2461254010 | Pin | |
| 023B | 1 | 1 | 2461254020 | Pin | |
| 024B | 1 | 1 | 53110303E9 | Hexagon Nut | |
| 025B | 4 | 4 | 2461107020 | Sheet | |
| | | | | | |
| 014B | 1 | 1 | 2112053030 | Cover | |
| 032B | 8 | 8 | 227H154010 | Knob | |
| 033B | 5 | 5 | 2144154010 | Knob, Lever Switch | |
| 037B | 2 | 2 | 51500306B0 | F.H. Tapped Screw | F3 x 6 |
| 038B | 2 | 2 | 51280308U0 | B.H. Tapped Screw | B3 x 8 |

- [C02-99] Top Cover

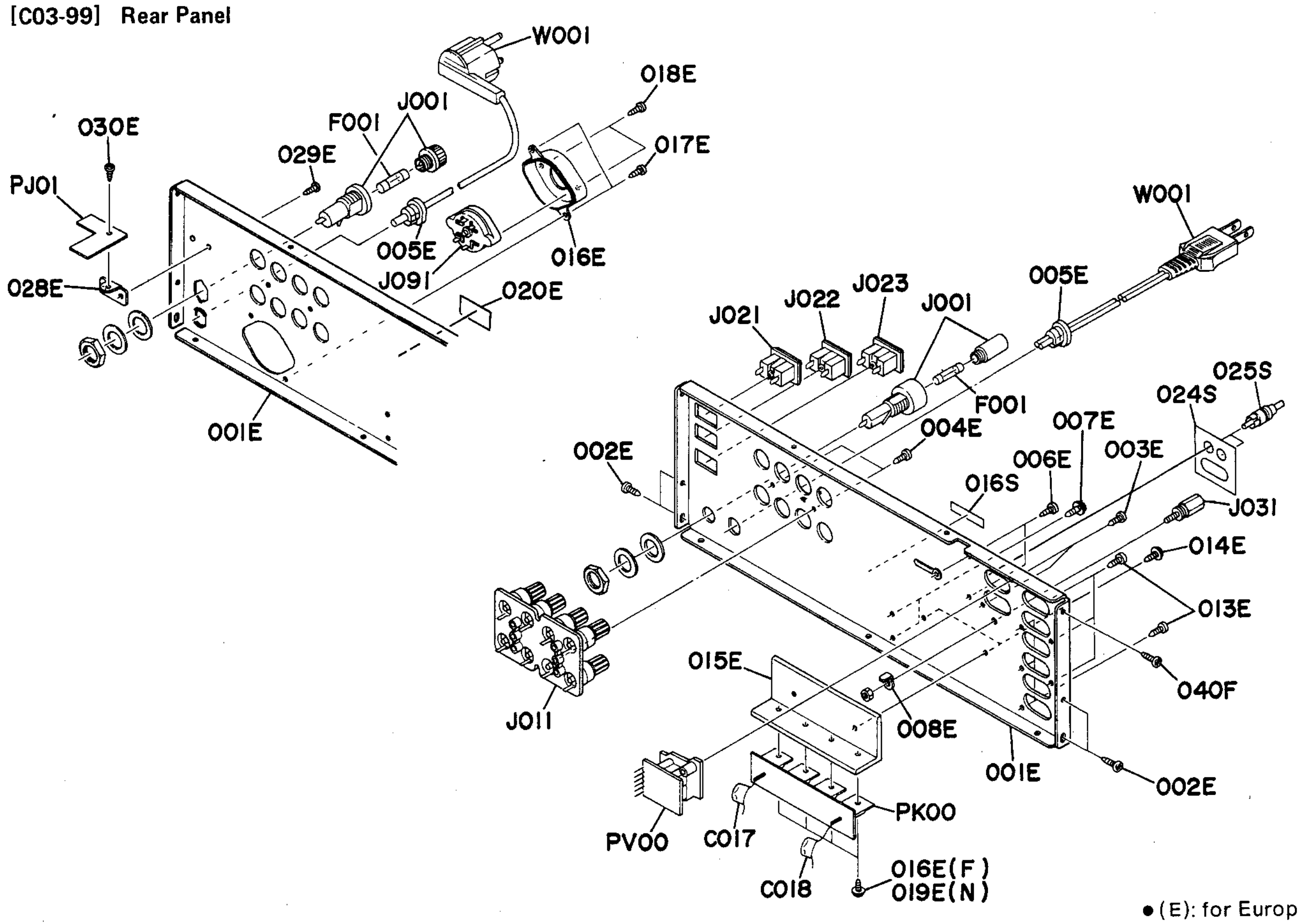

002D
001D
004D
006D
007D
005D
003D
002D
002D
004D
007D
002D
001R
006D
009D
003D
010D
010D
012D
012D
010D
011D
013D
003R
010D
013D
010D

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| 001D | 1 | 1 | 2461257010 | Lid, Top Cover |
| 002D | 4 | 4 | 2965118010 | Spacer |
| 003D | 6 | 6 | 2991259110 | Bushing |
| 004D | 4 | 4 | 51260308Z0 | Tapped Screw 3 x 8 |
| 005D | 1 | | 222H861020 | Label |
| 005D | | 1 | 222H861010 | Label |
| 006D | 4 | 4 | 51480406Z9 | F. Washer Screw 4 x 6 |
| 007D | 4 | 4 | 59030805S0 | Washer |

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| 009D | 1 | 1 | 2144257010 | Lid, Bottom Cover |
| 010D | 11 | 11 | 51280410U0 | B.H. Tapped Screw B4 x 10 |
| 011D | 1 | 1 | 51280406U0 | B.H. Tapped Screw B4 x 6 |
| 012D | 4 | 4 | 2759057010 | Leg |
| 013D | 4 | | 51570410U0 | P. Taptite Screw P4 x 10 |
| 013D | | 4 | 51570410S0 | P.Taptite Screw P4 x 10 |
| 001R | 1 | | 2911861140 | Label |
| 003R | 1 | | 2911861110 | Label |

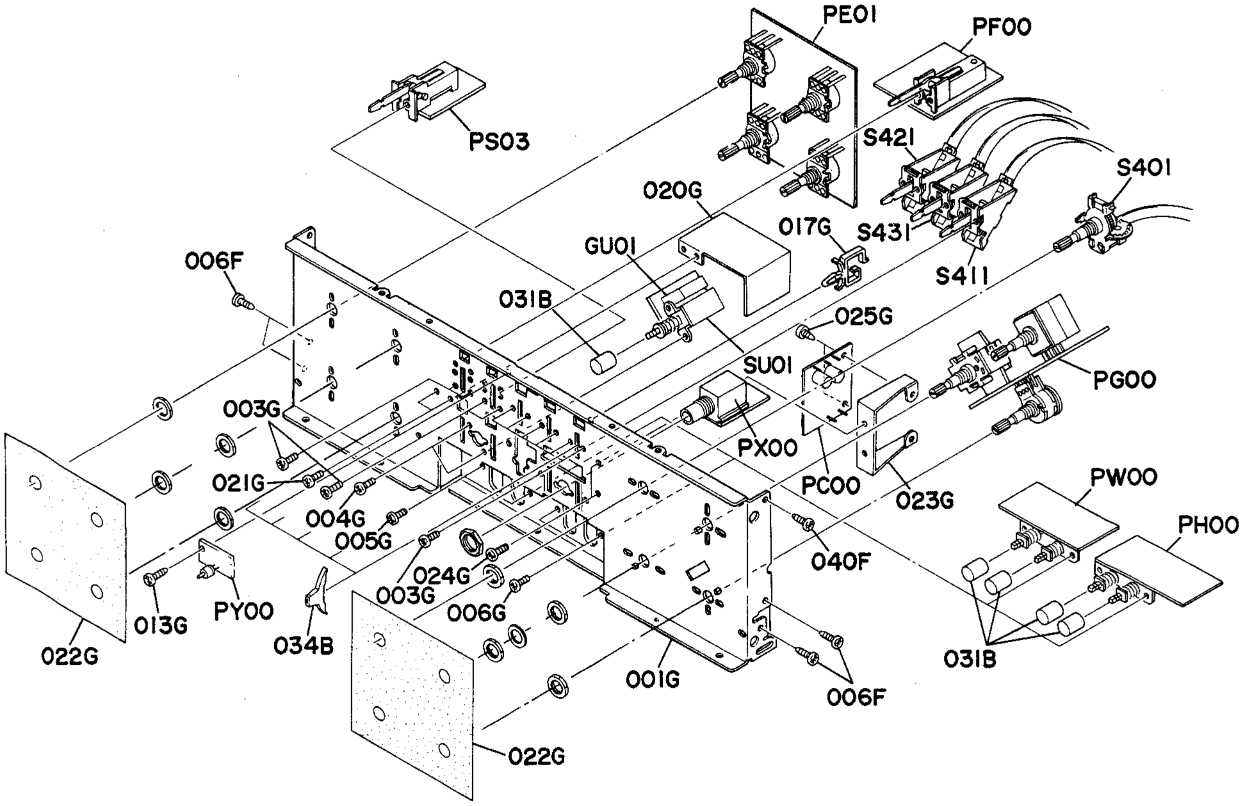
- [C03-99] Rear Panel


W001
018E
J001
F001
030E
029E
017E
PJ01
W001
005E
016E
J091
028E
020E
J021
J022
J023
J001
005E
025S
024S
001E
F001
004E
007E
002E
006E
003E
016S
J031
014E
013E
015E
040F
J011
008E
001E
002E
PK00
PV00
C017
016E(F)
C018
019E(N)

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| 001E | 1 | | 221H160220 | Bracket, Rear Panel |
| 001E | | 1 | 221H160210 | Bracket, Rear Panel |
| 002E | 4 | 4 | 51100308S9 | B.H.M. Screw B3 x 8 |
| 003E | 2 | 2 | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 004E | 2 | 2 | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 005E | 1 | | 1455259040 | Bushing |
| 005E | | 1 | 1455259090 | Bushing |
| 006E | 2 | 2 | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 007E | 2 | 2 | 51260308Z0 | B.T. Screw B3 x 8 |
| 008E | 1 | 1 | 62040029W0 | Lug |
| 013E | 6 | 6 | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 014E | 2 | 2 | 51260308Z0 | B.T. Screw B3 x 8 |
| 015E | 1 | 1 | 221H267010 | Heatsink |
| 016E | 1 | | 201H053030 | Cover, Voltage Selector |
| 016E | | 4 | 51780312Z0 | Fin Neck B.T. Screw B3 x 8 |
| 017E | 2 | | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 018E | 2 | | 51280310U0 | B.T. Screw B3 x 10 |
| 019E | 4 | | 51780312Z0 | Fin Neck B.T. Screw B3 x 8 |
| 020E | 1 | | 4581861010 | Label |
| 028E | 1 | | 404H160030 | Bracket |
| 029E | 1 | | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 030E | 1 | | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 040F | 1 | 1 | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 016S | 1 | 1 | 2112265010 | Indicator |
| C017 | 1 | 1 | DF17474510 | Film Cap. 0.47μF ±20% |
| C018 | 1 | 1 | DF17474510 | Film Cap. 0.47μF ±20% |
| ⚠F001 | 1 | | FS10400600 | Fuse, 4A |
| ⚠F001 | | 1 | FS10800600 | Fuse, 8A |
| ⚠J001 | 1 | | YJ08000290 | Jack, Fuse Holder |
| ⚠J001 | | 1 | YJ08000300 | Jack, Fuse Holder |
| J011 | 1 | 1 | YT01080030 | Terminal, Speaker System |
| ⚠J021 | | 1 | YJ04000950 | Jack, AC Outlet |
| ⚠J022 | | 1 | YJ04000950 | Jack, AC Outlet |
| ⚠J023 | | 1 | YJ04000950 | Jack, AC Outlet |
| J031 | 1 | 1 | YT01010050 | Terminal, GND |
| ⚠J091 | 1 | | BY05080010 | Voltage Selector |
| ⚠W001 | 1 | | YC01800220 | A.C. Power Cord |
| ⚠W001 | | 1 | YC02400180 | A.C. Power Cord |
| 024S | 1 | 1 | 2147863010 | Hang Tag |
| 025S | 2 | 2 | YQ01000020 | Shote Plug |

- **[P01-99] Front Chassis and General Parts**

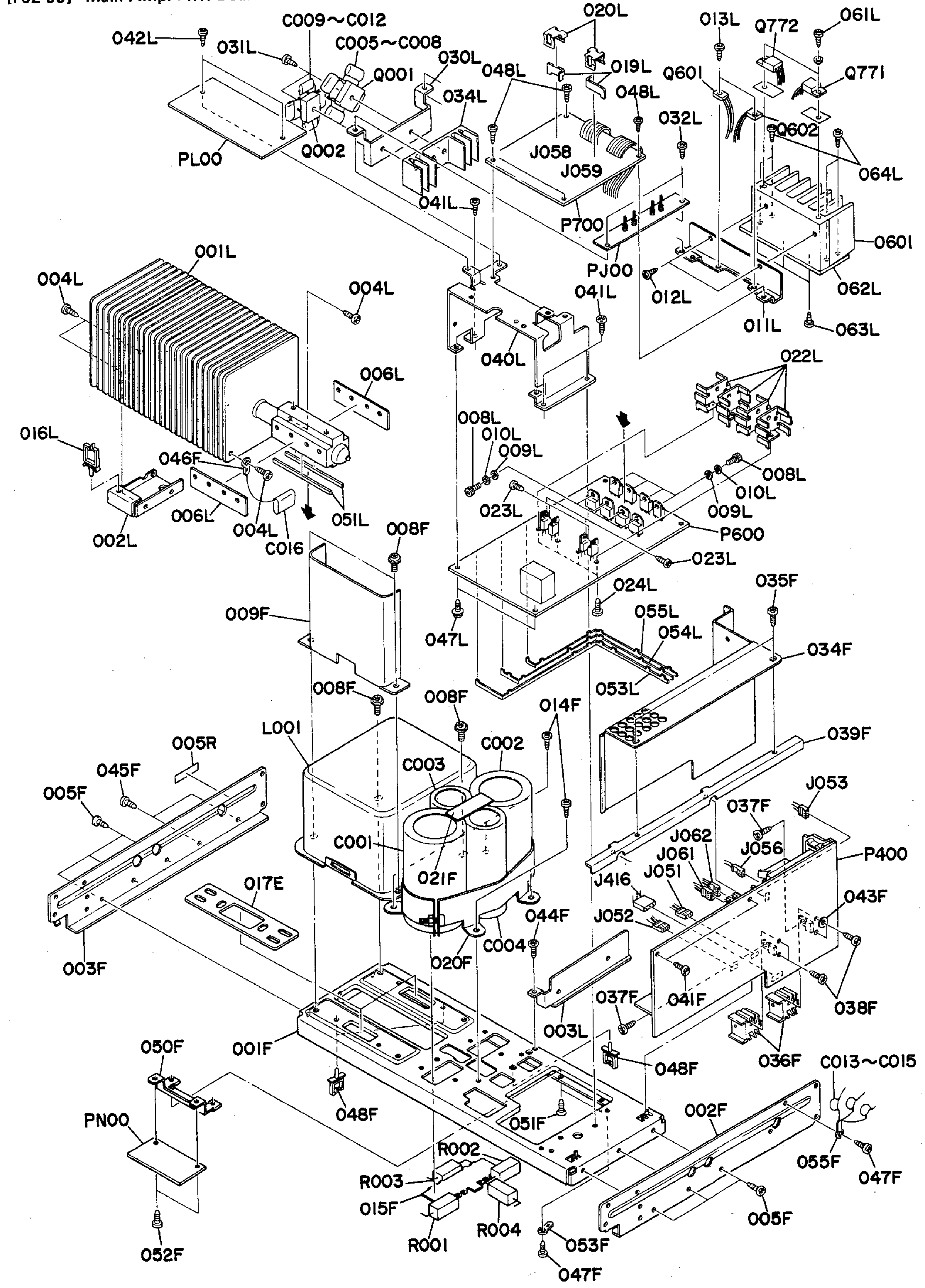

PE01
PF00
PS03
S421
S401
020G
017G
S431
GU01
006F
031B
S411
025G
SU01
PG00
003G
PX00
021G
PW00
PC00
023G
PH00
004G
005G
040F
024G
003G
006G
013G
PY00
034B
022G
031B
001G
006F
022G

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION | |
|---|---|---|---|---|---|
| | E | F | | | |
| 031B | 5 | 5 | 2970154630 | Knob, Push Switch | |
| 034B | 5 | 5 | 2144259110 | Bushing, Lever Switch | |
| 006F | 4 | 4 | 51260308Z0 | B.T. Screw | B3 x 8 |
| 040F | 1 | 1 | 51280308B0 | B.H. Tapped Screw | B3 x 8 |
| 001G | 1 | 1 | 2144160010 | Bracket, Front Chassis | |
| 003G | 10 | 10 | 51100306A9 | B.H.M. Screw | B3 x 6 |
| 004G | 2 | 2 | 51100306A9 | B.H.M. Screw | B3 x 6 |
| 005G | 2 | 2 | 51100306A9 | B.H.M. Screw | B3 x 6 |
| 006G | 2 | 2 | 51100306A9 | B.H.M. Screw | B3 x 6 |
| 013G | 2 | 2 | 51280308B0 | B.H. Tapped Screw | B3 x 8 |
| 017G | 1 | 1 | 2129005010 | Clamper | |
| 020G | 1 | 1 | 2144109020 | Shield | |
| 021G | 2 | 2 | 51100306A9 | B.H.M. Screw | B3 x 6 |
| 022G | 2 | 2 | 223H303010 | Mask | |
| 023G | 1 | 1 | 403H160040 | Bracket | • |
| 024G | 2 | 2 | 51280308B0 | B.H. Tapped Screw | B3 x 8 |
| 025G | 2 | 2 | 51280308B0 | B.H. Tapped Screw | B3 x 8 |

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| S401 | 1 | 1 | SR00050110 | Rotary Switch, Phone Selector |
| S411 | 1 | 1 | SC00030010 | Switch, Input Selector |
| S421 | 1 | 1 | SC00030010 | Switch, Tape Copy |
| S431 | 1 | 1 | SC00030010 | Switch, Tape Monitor |
| ⚠SU01 | 1 | | SP01010410 | Push Switch Power |
| ⚠SU01 | | 1 | SP01010540 | Push Switch Power |
| ⚠GU01 | 1 | | DK18103840 | Ceramic 0.01μF |
| ⚠GU01 | | 1 | BF10400030 | Cap. Comp. 0.1μF +120Ω |

- [P02-99] Main Amp. P.W. Board and Heatsink


042L
C009～C012
031L
C005～C008
Q001
030L
048L
020L
019L
013L
Q772
061L
Q771
034L
048L
Q601
032L
Q602
PL00
Q002
J058
J059
064L
041L
P700
001L
PJ00
0601
004L
004L
041L
012L
062L
011L
063L
040L
022L
006L
008L
010L
009L
016L
046F
008L
010L
023L
009L
P600
006L
004L
051L
008F
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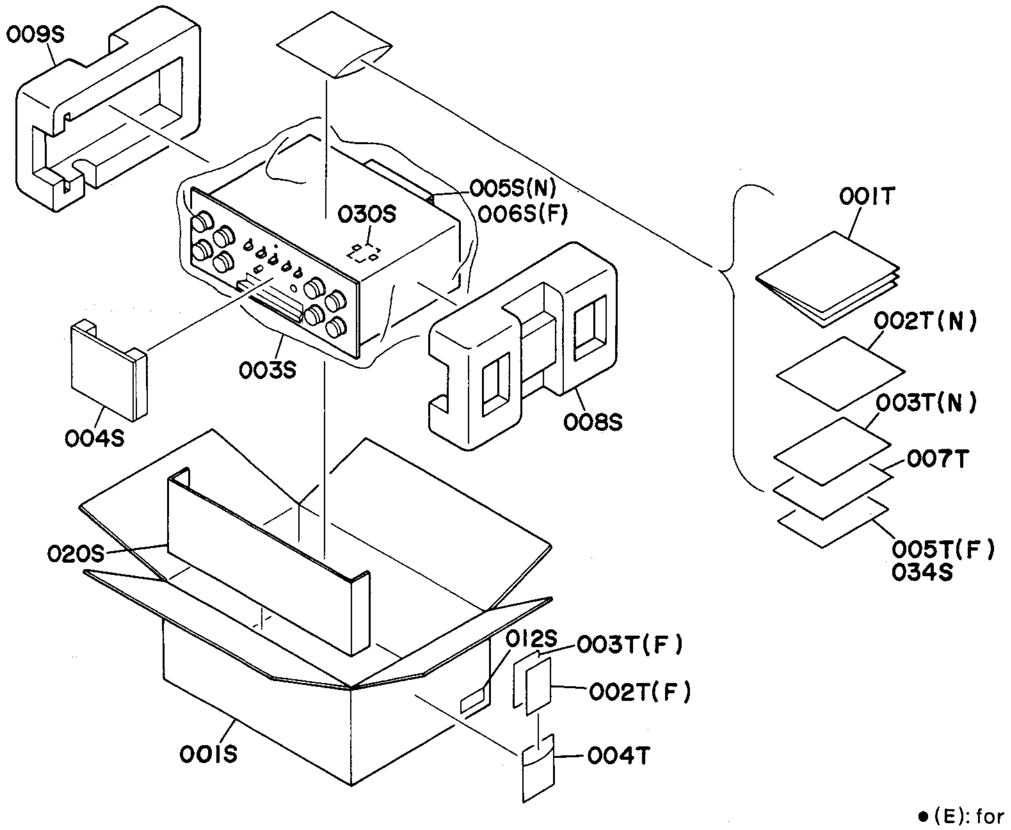
C016
023L
024L
035F
009F
055L
054L
047L
034F
053L
008F
008F
014F
L001
C002
039F
005R
045F
C003
J053
005F
037F
J062
C001
J061
J056
P400
017E
021F
J416
J051
043F
044F
J052
C004
003F
020F
037F
041F
038F
003L
050F
001F
048F
036F
C013～C015
PN00
048F
051F
002F
R002
055F
047F
R003
015F
R004
005F
R001
053F
052F
047F

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| 001F | 1 | 1 | 2144105010 | Chassis, Center |
| 002F | 1 | 1 | 2979105020 | Chassis, Side (R) |
| 003F | 1 | 1 | 2979105030 | Chassis, Side (L) |
| 005F | 6 | 6 | 51260408Z0 | B.T. Screw B4 x 8 |
| 008F | 4 | 4 | 51480406Z9 | F. Washer Screw F4 x 6 |
| 009F | 1 | 1 | 2144109030 | Shield |
| 014F | 4 | 4 | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 015F | 1 | 1 | 221H123010 | Contactor |
| 020F | 1 | 1 | 221H160010 | Bracket |
| 021F | 1 | 1 | 221H067010 | Cap. |
| 034F | 1 | 1 | 2144109010 | Shield |
| 035F | 2 | 2 | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 036F | 2 | 2 | 2144267030 | Heatsink |
| 037F | 2 | 2 | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 038F | 4 | 4 | 51300308B0 | P.H. Tapped Screw P3 x 8 |
| 039F | 1 | 1 | 2144160080 | Bracket |
| 041F | 2 | 2 | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 043F | 1 | 1 | 59030805S0 | Washer |
| 044F | 1 | 1 | 51260308Z0 | B.T. Screw B3 x 8 |
| 045F | 2 | 2 | 51260308Z0 | B.T. Screw B3 x 8 |
| 046F | 1 | 1 | 62030039W0 | Lug |
| 047F | 2 | 2 | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 048F | 3 | 3 | 2129005010 | Clamper |
| 050F | 1 | 1 | 2144160090 | Bracket |
| 051F | 2 | 2 | 51500308B0 | F.H. Taptite Screw F3 x 8 |
| 052F | 2 | 2 | 51280306B0 | B.H. Tapped Screw B3 x 6 |
| 053F | 1 | 1 | 62030039W0 | Lug |
| 055F | 1 | 1 | 62030049W0 | Lug |
| 001L | 1 | 1 | 222H267020 | Heatsink |
| 002L | 1 | 1 | 2144160040 | Bracket |
| 003L | 1 | 1 | 2144160050 | Bracket |
| 004L | 4 | 4 | 51260306Z0 | B.T. Screw B3 x 6 |
| 006L | 2 | 2 | 201H120010 | Insulator |
| 008L | 8 | 8 | 52730310Z9 | H.S. Head Bolt H3 x 10 |
| 009L | 8 | 8 | 54020301E0 | Flat Washer, P. |
| 010L | 8 | 8 | 54040302N0 | Spring Washer |
| 011L | 1 | 1 | 222H160030 | Bracket |
| 012L | 2 | 3 | 51280308Z0 | B.H. Tapped Screw B3 x 8 |
| 013L | 2 | 2 | 51280308Z0 | B.H. Tapped Screw B3 x 8 |
| 016L | 1 | 1 | 2886005020 | Clamper |
| 019L | 2 | 2 | 2990267080 | Heatsink |
| 020L | 2 | 2 | 2990115010 | Spring |
| 022L | 4 | 4 | 2212267020 | Heatsink |
| 023L | 4 | 4 | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 024L | 4 | 4 | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 030L | 1 | 1 | 2144267020 | Heatsink |
| 031L | 2 | 2 | 51280315B0 | B.H. Tapped Screw B3 x 15 |
| 032L | 2 | 2 | 51260308Z0 | B.T. Screw B3 x 8 |
| 034L | 1 | 1 | 2144267040 | Heatsink |
| 040L | 1 | 1 | 2144160060 | Bracket |
| 041L | 3 | 3 | 51280308Z0 | B.H. Tapped Screw B3 x 8 |
| 042L | 2 | 2 | 51280308B0 | B.H. Tapped Screw B3 x 8 |
| 047L | 2 | 2 | 51260308B0 | B.T. Screw B3 x 8 |
| 048L | 4 | 4 | 51280308U0 | B.H. Tapped Screw B3 x 8 |
| 051L | 2 | 2 | 2144118010 | Spacer |
| 053L | 1 | 1 | 2144123040 | Contactor |

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| 054L | 1 | 1 | 2144123050 | Contactor |
| 055L | 1 | 1 | 2144123060 | Contactor |
| 060L | 1 | 1 | 222H267030 | Heatsink |
| 061L | 2 | 2 | 51100308Z9 | B.H. Tapped Screw B3 x 8 |
| 062L | 1 | 1 | 222H267040 | Heatsink |
| 063L | 3 | 3 | 51280312Z0 | B.H. Tapped Screw B3 x 12 |
| 064L | 4 | 4 | 51280312Z0 | B.H. Tapped Screw B3 x 12 |
| 017E |  | 2 | 223H120010 | Insulator |
| 005R | 1 |  | 2882861020 | Label |
| ⚠C001 | 1 | 1 | EC22907520 | Elect Cap. 22000μF 75V |
| ⚠C002 | 1 | 1 | EC22907520 | Elect Cap. 22000μF 75V |
| ⚠C003 | 1 | 1 | EC20903510 | Elect Cap. 20000μF 35V |
| ⚠C004 | 1 | 1 | EC20903510 | Elect Cap. 20000μF 35V |
| C005 | 1 | 1 | DF17104520 | Film Cap. 0.1μF ±20% |
| C006 | 1 | 1 | DF17104520 | Film Cap. 0.1μF ±20% |
| C007 | 1 | 1 | DF17104520 | Film Cap. 0.1μF ±20% |
| C008 | 1 | 1 | DF17104520 | Film Cap. 0.1μF ±20% |
| C009 | 1 | 1 | DF17223540 | Film Cap. 0.022μF ±20% |
| C010 | 1 | 1 | DF17223540 | Film Cap. 0 022μF ±20% |
| C011 | 1 | 1 | DF17223540 | Film Cap. 0.022μF ±20% |
| C012 | 1 | 1 | DF17223540 | Film Cap. 0 022μF ±20% |
| C013 | 1 | 1 | DK18473320 | Ceramic Cap. 0.047μF |
| C014 | 1 | 1 | DK18473320 | Ceramic Cap. 0.047μF |
| C015 | 1 | 1 | DK18473320 | Ceramic Cap. 0.047μF |
| C016 | 1 | 1 | DF16103350 | Film 0.01μF ±10% |
| J051 | 1 | 1 | YJ06002200 | Jack, (3P) |
| J052 | 1 | 1 | YJ06002210 | Jack, (3P) |
| J053 | 1 | 1 | YJ06002220 | Jack, (3P) |
| J056 | 1 | 1 | YJ06002240 | Jack, (2P) |
| J058 | 1 | 1 | YU08200260 | Jumper Lead, (8P) |
| J059 | 1 | 1 | YU06200260 | Jumper Lead, (6P) |
| J061 | 1 | 1 | YJ06002300 | Jack, (3P) |
| J062 | 1 | 1 | YJ06002310 | Jack, (3P) |
| J416 | 1 | 1 | YJ06001240 | Jack, (3P) |
| ⚠L001 | 1 |  | TS60508100 | Power Transformer |
| ⚠L001 |  | 1 | TS60508090 | Power Transformer |
| ⚠Q001 | 1 | 1 | HD20004290 | Diode S5VB-20 |
| ⚠Q002 | 1 | 1 | HD20022290 | Diode S4VB-20 |
| ⚠R001 | 1 | 1 | GS10222030 | Resistor 2.2KΩ ±10% 3W |
| ⚠R002 | 1 | 1 | GS10222030 | Resistor 2.2KΩ ±10% 3W |
| ⚠R003 | 1 | 1 | GS10222030 | Resistor 2.2KΩ ±10% 3W |
| ⚠R004 | 1 | 1 | GS10222030 | Resistor 2.2KΩ ±10% 3W |

- **[H01-99] Packing Materials**



- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY |  | PART NO. | DESCRIPTION |
|---|---|---|---|---|
|  | E | F |  |  |
| 001S | 1 | 1 | 221H801010 | Packing Case |
| 003S | 1 | 1 | 9090909030 | Polyethylene Sheet |
| 004S | 1 | 1 | 2144809020 | Cushion |
| 005S | 1 |  | 2864804010 | Sleeve |
| 006S |  | 1 | 2864804010 | Sleeve |
| 008S | 1 | 1 | 2139809010 | Cushion, (R) |
| 009S | 1 | 1 | 2139809020 | Cushion, (L) |
| 012S | 2 |  | 9526019060 | Serial No. Card |
| 012S |  | 2 | 9526019040 | Serial No. Card |
| 020S | 1 | 1 | 2144807010 | Reinforcing |
| 030S | 1 |  | 2731821010 | Silicagel |
| 034S | 1 |  | 2275851370 | Instructions, Flysheet |

| REF. DESIG. | Q'TY |  | PART NO. | DESCRIPTION |
|---|---|---|---|---|
|  | E | F |  |  |
| 001T | 1 |  | 221H851310 | Instructions |
| 001T |  | 1 | 221H851110 | Instructions |
| 002T | 1 |  | 221H851320 | Instructions, Spec |
| 002T |  | 1 | 9631000130 | Guarantee Card |
| 003T | 1 |  | 221H856010 | Circuit Diagram |
| 004T |  | 1 | 128T854010 | Guarantee Card |
| 007T |  | 1 | 9611000030 | User's Card |

## 9. ELECTRICAL PARTS LIST

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY |  | PART NO. | DESCRIPTION |
|---|---|---|---|---|
|  | E | F |  |  |
|  |  |  |  | **P400-PRE-AMP. CIRCUIT BOARD** |
| P400 | 1 | 1 | YK21441510 | P.W. Board, Pre-Amp. (Phono MM, MC AMP.) |
|  | 1 |  | ZZ21448510 | P.W. Board Assembly |
|  |  |  |  | **P400-CAPACITORS** |
| CM01 | 1 | 1 | EQ22700610 | Elect 220μF 6.3V |
| CM02 | 1 | 1 | EQ22700610 | Elect 220μF 6.3V |
| CM03 | 1 | 1 | DF16152510 | Film 0.0015μF ±10% |
| CM04 | 1 | 1 | DF16152510 | Film 0.0015μF ±10% |
| CM05 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| CM06 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| CM07 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| CM08 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| CM09 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| CM10 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| CM11 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| CM12 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| CM13 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| CM14 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| CM15 | 1 | 1 | EA10602530 | Elect 10μF 25V |
| CM16 | 1 | 1 | EA10602530 | Elect 10μF 25V |
| CM17 | 1 | 1 | DF35470520 | Mica. 47pF ±5% |
| CM18 | 1 | 1 | DF35470520 | Mica. 47pF ±5% |
| CM19 | 1 | 1 | EQ22602520 | Elect 22μF 25V |
| CM20 | 1 | 1 | EQ22602520 | Elect 22μF 25V |
| CM21 | 1 | 1 | EA47701690 | Elect 470μF 16V |
| CM22 | 1 | 1 | EA47701690 | Elect 470μF 16V |
| CM23 | 1 | 1 | DF16152510 | Film 0.0015μF ±10% |
| CM24 | 1 | 1 | DF16152510 | Film 0.0015μF ±10% |
| C401 | 1 | 1 | DF35101520 | Film 100pF ±5% |
| C402 | 1 | 1 | DF35101520 | Film 100pF ±5% |
| C403 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| C404 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| C405 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| C406 | 1 | 1 | EA10800690 | Elect 1000μF 6.3V |
| C407 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| C408 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| C409 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| C410 | 1 | 1 | DF16222510 | Film 0.0022μF ±10% |
| C411 | 1 | 1 | DF16152300 | Film 1500pF ±10% |
| C412 | 1 | 1 | DF16152300 | Film 1500pF ±10% |
| C413 | 1 | 1 | DF55681090 | Film 680pF ±5% |
| C414 | 1 | 1 | DF55681090 | Film 680pF ±5% |
| C415 | 1 | 1 | DF74333010 | Film 0.033μF ±2% |
| C416 | 1 | 1 | DF74333010 | Film 0.033μF ±2% |
| C417 | 1 | 1 | DF74104010 | Film 0.1μF ±2% |
| C418 | 1 | 1 | DF74104010 | Film 0.1μF ±2% |
| C419 | 1 | 1 | DF74362510 | Film 3600pF ±2% |
| C420 | 1 | 1 | DF74362510 | Film 3600pF ±2% |
| C421 | 1 | 1 | DF64272010 | Film 2700pF ±2% |
| C422 | 1 | 1 | DF64272010 | Film 2700pF ±2% |
| C423 | 1 | 1 | DF16152510 | Film 1500pF ±10% |
| C424 | 1 | 1 | DF16152510 | Film 1500pF ±10% |
| C425 | 1 | 1 | EA22703590 | Elect 220μF 35V |
| C426 | 1 | 1 | EA22703590 | Elect 220μF 35V |
| C435 | 1 | 1 | DF55681090 | Film 680pF ±5% |
| C436 | 1 | 1 | DF55681090 | Film 680pF ±5% |
| C801 | 1 | 1 | EB10805070 | Elect 1000μF 50V |
| ⚠C802 | 1 | 1 | EB10805070 | Elect 1000μF 50V |
| C805 | 1 | 1 | DF55391090 | Film 390pF ±5% |
| C806 | 1 | 1 | DF55391090 | Film 390pF ±5% |
| C807 | 1 | 1 | EA10701030 | Elect 100μF 10V |

| REF. DESIG. | Q'TY |  | PART NO. | DESCRIPTION |
|---|---|---|---|---|
|  | E | F |  |  |
| C808 | 1 | 1 | EA10701030 | Elect 100μF 10V |
| C809 | 1 | 1 | EE10505010 | Elect 1μF 50V |
| C810 | 1 | 1 | EE10505010 | Elect 1μF 50V |
| ⚠C811 | 1 | 1 | EA22703590 | Elect 220μF 35V |
| ⚠C812 | 1 | 1 | EA22703590 | Elect 220μF 35V |
| C815 | 1 | 1 | DK18103510 | Ceramic 0.01μF |
| C816 | 1 | 1 | DK18103510 | Ceramic 0.01μF |
| C817 | 1 | 1 | DK18103510 | Ceramic 0.01μF |
| C818 | 1 | 1 | DK18103510 | Ceramic 0.01μF |
|  |  |  |  | **P400-RESISTORS (All Resistors are ±5% and ¼W)** |
| RM01 | 1 | 1 | GM21415000 | 150Ω ±2% |
| RM02 | 1 | 1 | GM21415000 | 150Ω ±2% |
| RM03 | 1 | 1 | GM21415000 | 150Ω ±2% |
| RM04 | 1 | 1 | GM21415000 | 150Ω ±2% |
| RM05 | 1 | 1 | GD05010140 | 1Ω |
| RM06 | 1 | 1 | GD05010140 | 1Ω |
| RM07 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM08 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM09 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM10 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM11 | 1 | 1 | GM21456010 | 5.6KΩ ±2% |
| RM12 | 1 | 1 | GM21456010 | 5.6KΩ ±2% |
| RM13 | 1 | 1 | GM21456010 | 5.6KΩ ±2% |
| RM14 | 1 | 1 | GM21456010 | 5.6KΩ ±2% |
| RM15 | 1 | 1 | GD05150140 | 15Ω |
| RM16 | 1 | 1 | GD05150140 | 15Ω |
| RM17 | 1 | 1 | GD05150140 | 15Ω |
| RM18 | 1 | 1 | GD05150140 | 15Ω |
| RM19 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM20 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM21 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM22 | 1 | 1 | GM21447000 | 470Ω ±2% |
| RM23 | 1 | 1 | GM214270G0 | 27Ω ±2% |
| RM24 | 1 | 1 | GM214270G0 | 27Ω ±2% |
| RM25 | 1 | 1 | GD05680140 | 680Ω |
| RM26 | 1 | 1 | GD05680140 | 680Ω |
| RM27 | 1 | 1 | GD05680140 | 680Ω |
| RM28 | 1 | 1 | GD05680140 | 680Ω |
| RM29 | 1 | 1 | GD05562140 | 5.6KΩ |
| RM30 | 1 | 1 | GD05562140 | 5.6KΩ |
| RM31 | 1 | 1 | GD05272140 | 2.7KΩ |
| RM32 | 1 | 1 | GD05272140 | 2.7KΩ |
| RM33 | 1 | 1 | GD05332140 | 3.3KΩ |
| RM34 | 1 | 1 | GD05332140 | 3.3KΩ |
| RM39 | 1 | 1 | GD05101140 | 100Ω |
| RM40 | 1 | 1 | GD05101140 | 100Ω |
| RM41 | 1 | 1 | GD05273140 | 27KΩ |
| RM42 | 1 | 1 | GD05273140 | 27KΩ |
| R401 | 1 | 1 | GM21439020 | 39KΩ ±2% |
| R402 | 1 | 1 | GM21439020 | 39KΩ ±2% |
| R403 | 1 | 1 | GM21410030 | 100KΩ ±2% |
| R404 | 1 | 1 | GM21410030 | 100KΩ ±2% |
| R405 | 1 | 1 | GM21410030 | 100KΩ ±2% |
| R406 | 1 | 1 | GM21410030 | 100KΩ ±2% |
| R407 | 1 | 1 | GM21410030 | 100KΩ ±2% |
| R408 | 1 | 1 | GM21410030 | 100KΩ ±2% |
| R409 | 1 | 1 | GM21410010 | 1KΩ ±2% |
| R410 | 1 | 1 | GM21410010 | 1KΩ ±2% |

● (E): for Europe
● (F): for Japan

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| R411 | 1 | 1 | GM21410010 | 1KΩ ±2% |
| R412 | 1 | 1 | GM21410010 | 1KΩ ±2% |
| R413 | 1 | 1 | GM21410010 | 1KΩ ±2% |
| R414 | 1 | 1 | GM21410010 | 1KΩ ±2% |
| R415 | 1 | 1 | GD05822140 | 8.2KΩ |
| R416 | 1 | 1 | GD05822140 | 8.2KΩ |
| R417 | 1 | 1 | GD05682140 | 6.8KΩ |
| R418 | 1 | 1 | GD05682140 | 6.8KΩ |
| R419 | 1 | 1 | GD05822140 | 8.2KΩ |
| R420 | 1 | 1 | GD05822140 | 8.2KΩ |
| R421 | 1 | 1 | GD05682140 | 6.8KΩ |
| R422 | 1 | 1 | GD05682140 | 6.8KΩ |
| R423 | 1 | 1 | GD05151140 | 150Ω |
| R424 | 1 | 1 | GD05151140 | 150Ω |
| R425 | 1 | 1 | GD05151140 | 150Ω |
| R426 | 1 | 1 | GD05151140 | 150Ω |
| R427 | 1 | 1 | GM21456020 | 56KΩ ±2% |
| R428 | 1 | 1 | GM21456020 | 56KΩ ±2% |
| R429 | 1 | 1 | GM21456020 | 56KΩ ±2% |
| R430 | 1 | 1 | GM21456020 | 56KΩ ±2% |
| R431 | 1 | 1 | GM214390G0 | 39Ω ±2% |
| R432 | 1 | 1 | GM214390G0 | 39Ω ±2% |
| R433 | 1 | 1 | GD05272140 | 2.7KΩ |
| R434 | 1 | 1 | GD05272140 | 2.7KΩ |
| R435 | 1 | 1 | GD05272140 | 2.7KΩ |
| R436 | 1 | 1 | GD05272140 | 2.7KΩ |
| R437 | 1 | 1 | GD05151140 | 150Ω |
| R438 | 1 | 1 | GD05151140 | 150Ω |
| R439 | 1 | 1 | GD05151140 | 150Ω |
| R440 | 1 | 1 | GD05151140 | 150Ω |
| R441 | 1 | 1 | GD05182140 | 1.8KΩ |
| R442 | 1 | 1 | GD05182140 | 1.8KΩ |
| R443 | 1 | 1 | GD05272140 | 2.7KΩ |
| R444 | 1 | 1 | GD05272140 | 2.7KΩ |
| R445 | 1 | 1 | GD05100140 | 10Ω |
| R446 | 1 | 1 | GD05100140 | 10Ω |
| R447 | 1 | 1 | GD05100140 | 10Ω |
| R448 | 1 | 1 | GD05100140 | 10Ω |
| R449 | 1 | 1 | GF05100140 | 10Ω |
| R450 | 1 | 1 | GF05100140 | 10Ω |
| R451 | 1 | 1 | GF05100140 | 10Ω |
| R452 | 1 | 1 | GF05100140 | 10Ω |
| R453 | 1 | 1 | GM21422010 | 2.2KΩ ±2% |
| R454 | 1 | 1 | GM21422010 | 2.2KΩ ±2% |
| R455 | 1 | 1 | GM214680G0 | 68Ω ±2% |
| R456 | 1 | 1 | GM214680G0 | 68Ω ±2% |
| R457 | 1 | 1 | GD05391140 | 390Ω |
| R458 | 1 | 1 | GD05391140 | 390Ω |
| R459 | 1 | 1 | GD05224140 | 220KΩ |
| R460 | 1 | 1 | GD05224140 | 220KΩ |
| R461 | 1 | 1 | GG05820120 | 82Ω ½W |
| R462 | 1 | 1 | GG05820120 | 82Ω ½W |
| R463 | 1 | 1 | GD05561140 | 560Ω |
| R464 | 1 | 1 | GD05561140 | 560Ω |
| R465 | 1 | 1 | GD05221140 | 220Ω |
| R466 | 1 | 1 | GD05221140 | 220Ω |
| R467 | 1 | 1 | GD05221140 | 220Ω |
| R468 | 1 | 1 | GD05221140 | 220Ω |
| R471 | 1 | 1 | GD05222140 | 2.2KΩ |
| R472 | 1 | 1 | GD05222140 | 2.2KΩ |

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| R801 | 1 | 1 | GD05151140 | 150Ω |
| R802 | 1 | 1 | GD05151140 | 150Ω |
| R803 | 1 | 1 | GD05102140 | 1KΩ |
| R804 | 1 | 1 | GD05102140 | 1KΩ |
| R805 | 1 | 1 | GG05272120 | 2.7KΩ ½W |
| R806 | 1 | 1 | GG05272120 | 2.7KΩ ½W |
| R807 | 1 | 1 | GD05183140 | 18KΩ |
| R808 | 1 | 1 | GD05183140 | 18KΩ |
| R809 | 1 | 1 | GM21448710 | 4.87KΩ ±2% |
| R810 | 1 | 1 | GM21448710 | 4.87KΩ ±2% |
|  |  |  |  | **P400-SEMICONDUCTORS** |
| Q417 | 1 | 1 | HT323201F0 | Transistor 2SC2320(F) |
| Q418 | 1 | 1 | HT323201F0 | Transistor 2SC2320(F) |
| Q419 | 1 | 1 | HT325912B0 | Transistor 2SC2591(Q or R) |
| Q420 | 1 | 1 | HT325912B0 | Transistor 2SC2591(Q or R) |
| Q421 | 1 | 1 | HT111112B0 | Transistor 2SA1111(Q or R) |
| Q422 | 1 | 1 | HT111112B0 | Transistor 2SA1111(Q or R) |
| Q423 | 1 | 1 | HD20014010 | Diode 1SS81 |
| Q424 | 1 | 1 | HD20014010 | Diode 1SS81 |
| Q425 | 1 | 1 | HD20014010 | Diode 1SS81 |
| Q426 | 1 | 1 | HD20014010 | Diode 1SS81 |
| Q427 | 1 | 1 | HD20014010 | Diode 1SS81 |
| ⚠Q801 | 1 | 1 | HT325912B0 | Transistor 2SC2591(Q or R) |
| ⚠Q802 | 1 | 1 | HT111112B0 | Transistor 2SA1111(Q or R) |
| Q803 | 1 | 1 | HT322402A0 | Transistor 2SC2240(GR or BL) |
| Q804 | 1 | 1 | HT109702A0 | Transistor 2SA970(GR or BL) |
| Q805 | 1 | 1 | HF200301C0 | F.E.T. 2SK30A(Y) |
| Q806 | 1 | 1 | HF200301C0 | F.E.T. 2SK30A(Y) |
| Q807 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |
| Q808 | 1 | 1 | HT108722D0 | Transistor 2SA872A(D or E) |
| Q809 | 1 | 1 | HD30008010 | Zener HZ6B1L |
| Q810 | 1 | 1 | HD30008010 | Zener HZ6B1L |
| ⚠Q811 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
| ⚠Q812 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
| ⚠Q813 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
| ⚠Q814 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
|  |  |  |  | **P400-MISCELLANEOUS** |
| J401 | 1 | 1 | YT02040330 | Terminal (4P) RCA |
| J402 | 1 | 1 | YT02040330 | Terminal (4P) RCA |
| J403 | 1 | 1 | YT02040330 | Terminal (4P) RCA |
| J404 | 1 | 1 | YP01001030 | Plug (3P) |
| J405 | 1 | 1 | YP01001030 | Plug (3P) |
| J406 | 1 | 1 | YP01001030 | Plug (3P) |
| J407 | 1 | 1 | YP10001980 | Plug (2P) |
| J408 | 1 | 1 | YP10001980 | Plug (2P) |
| J409 | 1 | 1 | YP06001040 | Plug (3P) |
| J414 | 1 | 1 | YP01001030 | Plug (3P) |
| J415 | 1 | 1 | YP01001030 | Plug (3P) |
| J416 | 1 | 1 | YJ06001240 | Jack (3P) |
| L401 | 1 | 1 | LY20240160 | Relay FRL-644D24/2BS |
| S401 | 1 | 1 | SR00050110 | Rotary Switch, Phono Selector |
| S402 | 1 | 1 | SS06060030 | Slide Switch Phono Selector |
| S411 | 1 | 1 | SC00030010 | Switch, Input Selector |
| S412 | 1 | 1 | SB13070020 | Switch Band, FLX |
| S413 | 1 | 1 | SS08040020 | Slide Switch 8-4 S Main |
| S421 | 1 | 1 | SC00030010 | Switch, Tape Copy |
| S422 | 1 | 1 | SB13970010 | Switch Band, FLX, Tape Copy |
| S423 | 1 | 1 | SS04040040 | Slide Switch 4-4 NS Main |
| S431 | 1 | 1 | SC00030010 | Switch, Tape Monitor |
| S432 | 1 | 1 | SB13670010 | Switch Band, FLX, Tape Monitor |
| S433 | 1 | 1 | SS04040040 | Slide Switch 4-4 NS Main |

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **P401-MM TRANSISTOR BLOCK CIRCUIT BOARD** |
| P401 | 1 | 1 | YH21441330 | P.W. Board, MM Transistor Block |
| | 1 | | ZZ21448330 | P.W. Board Assembly |
| | | | | **P401-SEMICONDUCTORS** |
| Q401 | 1 | 1 | HF201472B0 | F.E.T. 2SK147 |
| Q402 | 1 | 1 | HF201472B0 | F.E.T. 2SK147 |
| Q403 | 1 | 1 | HF100722B0 | F.E.T. 2SJ72 |
| Q404 | 1 | 1 | HF100722B0 | F.E.T. 2SJ72 |
| Q405 | 1 | 1 | HT322401B0 | Transistor 2SC2240(BL) |
| Q406 | 1 | 1 | HT322401B0 | Transistor 2SC2240(BL) |
| Q407 | 1 | 1 | HT109701B0 | Transistor 2SA970(BL) |
| Q408 | 1 | 1 | HT109701B0 | Transistor 2SA970(BL) |
| Q409 | 1 | 1 | HT109701A0 | Transistor 2SA970(GR) |
| Q410 | 1 | 1 | HT109701A0 | Transistor 2SA970(GR) |
| Q411 | 1 | 1 | HT322401A0 | Transistor 2SC2240(GR) |
| Q412 | 1 | 1 | HT322401A0 | Transistor 2SC2240(GR) |
| Q413 | 1 | 1 | HT108722D0 | Transistor 2SA872A(D or E) |
| Q414 | 1 | 1 | HT108722D0 | Transistor 2SA872A(D or E) |
| Q415 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |
| Q416 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |
| | | | | **P401-PLUGS** |
| J410 | 1 | 1 | YP06000750 | Plug, (14P) |
| J411 | 1 | 1 | YP06000750 | Plug, (14P) |
| J412 | 1 | 1 | YP06000750 | Plug, (14P) |
| J413 | 1 | 1 | YP06000750 | Plug, (14P) |
| | | | | **P600-POWER AMP. CIRCUIT BOARD** |
| P600 | 1 | 1 | YK222H1310 | P.W. Board, Power Amp. |
| | 1 | | ZZ221H8310 | P.W. Board Assembly |
| | | | | **P600-CAPACITORS** |
| C601 | 1 | 1 | DF55271510 | Film 270pF ±5% |
| C602 | 1 | 1 | DF55271510 | Film 270pF ±5% |
| C603 | 1 | 1 | EA10602530 | Elect 10µF 25V |
| C604 | 1 | 1 | EA10602530 | Elect 10µF 25V |
| C605 | 1 | 1 | DF16104350 | Film 0.1µF ±10% |
| C606 | 1 | 1 | DF16104350 | Film 0.1µF ±10% |
| C609 | 1 | 1 | DF16104510 | Film 0.1µF ±10% |
| C610 | 1 | 1 | DF16104510 | Film 0.1µF ±10% |
| C613 | 1 | 1 | EA10505030 | Elect 1µF 50V |
| C614 | 1 | 1 | EA47602530 | Elect 47µF 25V |
| C615 | 1 | 1 | EA22601630 | Elect 22µF 16V |
| ⚠C616 | 1 | 1 | EA22710030 | Elect 220µF 100V |
| ⚠C617 | 1 | 1 | EA22710030 | Elect 220µF 100V |
| C620 | 1 | 1 | DK18103510 | Ceramic 0.01µF |
| C621 | 1 | 1 | DK18103510 | Ceramic 0.01µF |
| C623 | 1 | 1 | DF16473350 | Film 0.047µF ±10% |
| C624 | 1 | 1 | DF16473350 | Film 0.047µF ±10% |
| C626 | 1 | 1 | EA10602530 | Elect 10µF 25V |
| C629 | 1 | 1 | DF16473350 | Film 0.047µF ±10% |
| C630 | 1 | 1 | DF16473350 | Film 0.047µF ±10% |
| C631 | 1 | 1 | DF16473300 | Film 0.047µF ±10% |
| C632 | 1 | 1 | DF16222350 | Film 2200pF ±10% |
| C633 | 1 | 1 | DF16474520 | Film 0.47µF ±10% |
| C634 | 1 | 1 | DF16474520 | Film 0.47µF ±10% |
| C635 | 1 | 1 | EA47601630 | Elect 47µF 16V |

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **P600-RESISTORS (All Resistors are ±5% and ¼W)** |
| R601 | 1 | 1 | GD05472140 | 4.7KΩ |
| R602 | 1 | 1 | GD05472140 | 4.7KΩ |
| R603 | 1 | 1 | GD05153140 | 15KΩ |
| R604 | 1 | 1 | GD05153140 | 15KΩ |
| R605 | 1 | 1 | GD05103140 | 10KΩ |
| R606 | 1 | 1 | GD05103140 | 10KΩ |
| R607 | 1 | 1 | GD05273140 | 27KΩ |
| R608 | 1 | 1 | GD05273140 | 27KΩ |
| R609 | 1 | 1 | GD05273140 | 27KΩ |
| R610 | 1 | 1 | GD05273140 | 27KΩ |
| R611 | 1 | 1 | GD05821140 | 820Ω |
| R612 | 1 | 1 | GD05821140 | 820Ω |
| R613 | 1 | 1 | GG05470140 | 47Ω |
| R614 | 1 | 1 | GG05470140 | 47Ω |
| R615 | 1 | 1 | GG05470140 | 47Ω |
| R616 | 1 | 1 | GG05470140 | 47Ω |
| R617 | 1 | 1 | GG05471140 | 470Ω |
| R618 | 1 | 1 | GG05471140 | 470Ω |
| R619 | 1 | 1 | GA05562010 | 5.6KΩ 1W |
| R620 | 1 | 1 | GA05562010 | 5.6KΩ 1W |
| R621 | 1 | 1 | GG05330140 | 33Ω |
| R622 | 1 | 1 | GG05330140 | 33Ω |
| R623 | 1 | 1 | GG05330140 | 33Ω |
| R624 | 1 | 1 | GG05330140 | 33Ω |
| R625 | 1 | 1 | GG05470140 | 47Ω |
| R626 | 1 | 1 | GG05470140 | 47Ω |
| R627 | 1 | 1 | 75061001P0 | Jumper |
| R628 | 1 | 1 | 75061001P0 | Jumper |
| R629 | 1 | 1 | GG05220140 | 22Ω |
| R630 | 1 | 1 | GG05220140 | 22Ω |
| R631 | 1 | 1 | GG05220140 | 22Ω |
| R632 | 1 | 1 | GG05220140 | 22Ω |
| R633 | 1 | 1 | GG05220140 | 22Ω |
| R634 | 1 | 1 | GG05220140 | 22Ω |
| R635 | 1 | 1 | GG05220140 | 22Ω |
| R636 | 1 | 1 | GG05220140 | 22Ω |
| ⚠R637 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5W |
| ⚠R638 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5W |
| ⚠R639 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5W |
| ⚠R640 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5W |
| ⚠R641 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5W |
| ⚠R642 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5W |
| ⚠R643 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5W |
| ⚠R644 | 1 | 1 | GO10272050 | 0.27Ω ±10% 5% |
| R645 | 1 | 1 | GD05472140 | 4.7KΩ |
| R646 | 1 | 1 | GD05472140 | 4.7KΩ |
| R649 | 1 | 1 | GD05682140 | 6.8KΩ |
| R650 | 1 | 1 | GD05102140 | 1KΩ |
| R651 | 1 | 1 | GD05273140 | 27KΩ |
| R652 | 1 | 1 | GD05273140 | 27KΩ |
| R653 | 1 | 1 | GA05100030 | 10Ω 3W |
| R654 | 1 | 1 | GA05100030 | 10Ω 3W |
| R657 | 1 | 1 | GD05823140 | 82KΩ |
| R658 | 1 | 1 | GD05823140 | 82KΩ |
| R659 | 1 | 1 | GD05393140 | 39KΩ |
| R660 | 1 | 1 | GD05104140 | 100KΩ |
| R661 | 1 | 1 | GD05473140 | 47KΩ |
| R662 | 1 | 1 | GD05473140 | 47KΩ |

● (E): for Europe
● (F): for Japan

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| R663 | 1 | 1 | GD05474140 | 470KΩ |
| R664 | 1 | 1 | GD05273140 | 27KΩ |
| R666 | 1 | 1 | GD05223140 | 22KΩ |
| R667 | 1 | 1 | GG05183120 | 18KΩ |
| R668 | 1 | 1 | GD05332140 | 3.3KΩ ½W |
| R669 | 1 | 1 | GG05272120 | 2.7KΩ ½W |
| R671 | 1 | 1 | GA05562010 | 5.6KΩ 1W |
| R672 | 1 | 1 | GA05562010 | 5.6KΩ 1W |
| R673 | 1 | 1 | GJ05100010 | 10Ω 1W |
| R681 | 1 | 1 | GA05911020 | 910Ω 2W |
| R682 | 1 | 1 | GD05010140 | 1Ω |
| R683 | 1 | 1 | GD05010140 | 1Ω |
| | | | | **P600-SEMICONDUCTORS** |
| Q601 | 1 | 1 | HT315681S0 | Transistor 2SC1568(S) |
| Q602 | 1 | 1 | HT315681S0 | Transistor 2SC1568(S) |
| Q603 | 1 | 1 | HT110152A0 | Transistor 2SA1015(O or Y) |
| Q604 | 1 | 1 | HT110152A0 | Transistor 2SA1015(O or Y) |
| Q605 | 1 | 1 | HT326322R0 | Transistor 2SC2632(R or S) |
| Q606 | 1 | 1 | HT326322R0 | Transistor 2SC2632(R or S) |
| Q607 | 1 | 1 | HT111242R0 | Transistor 2SA1124(R or S) |
| Q608 | 1 | 1 | HT111242R0 | Transistor 2SA1124(R or S) |
| Q609 | 1 | 1 | HT325912B0 | Transistor 2SC2591(Q or R) |
| Q610 | 1 | 1 | HT111112B0 | Transistor 2SA1111(Q or R) |
| Q611 | 1 | 1 | HT325912B0 | Transistor 2SC2591(Q or R) |
| Q612 | 1 | 1 | HT111112B0 | Transistor 2SA1111(Q or R) |
| ⚠Q613 | 1 | 1 | HT328372A0 | Transistor 2SC2837(R or O) |
| ⚠Q614 | 1 | 1 | HT111862A0 | Transistor 2SA1186(R or O) |
| ⚠Q615 | 1 | 1 | HT328372A0 | Transistor 2SC2837(R or O) |
| ⚠Q616 | 1 | 1 | HT111862A0 | Transistor 2SA1186(R or O) |
| Q617 | 1 | 1 | HT328372A0 | Transistor 2SC2837(R or O) |
| Q618 | 1 | 1 | HT111862A0 | Transistor 2SA1186(R or O) |
| ⚠Q619 | 1 | 1 | HT328372A0 | Transistor 2SC2827(R or O) |
| ⚠Q620 | 1 | 1 | HT111862A0 | Transistor 2SA1186(R or O) |
| Q621 | 1 | 1 | HT317752D0 | Transistor 2SC1775 |
| Q622 | 1 | 1 | HT317752D0 | Transistor 2SC1775 |
| Q623 | 1 | 1 | HT108722D0 | Transistor 2SA872 |
| Q624 | 1 | 1 | HC10042050 | IC TA7317P |
| Q625 | 1 | 1 | HD20014010 | Diode 1S2471G |
| Q626 | 1 | 1 | HD20014010 | Diode 1S2471G |
| Q627 | 1 | 1 | HD20014010 | Diode 1S2471G |
| Q628 | 1 | 1 | HD20014010 | Diode 1S2471G |
| Q629 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
| Q630 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
| Q631 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
| Q632 | 1 | 1 | HD20022030 | Diode DSF-10C-BT |
| Q633 | 1 | 1 | HD20011010 | Diode W06C |
| Q634 | 1 | 1 | HD20011010 | Diode W06C |
| Q635 | 1 | 1 | HD20011010 | Diode W06C |
| Q636 | 1 | 1 | HD20011010 | Diode W06C |
| Q639 | 1 | 1 | HD20014010 | Diode 1SS81 |
| Q640 | 1 | 1 | HD20025100 | Diode 10DF-2 |
| ⚠Q642 | 1 | 1 | HD20022030 | Diode DS135D |
| ⚠Q643 | 1 | 1 | HD20022030 | Diode DS135D |
| ⚠Q644 | 1 | 1 | HD20022030 | Diode DS135D |
| ⚠Q645 | 1 | 1 | HD20022030 | Diode DS135D |
| Q647 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q648 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q649 | 1 | 1 | HD30064090 | Zener BZ-240 |
| Q650 | 1 | 1 | HD30033090 | Zener WZ-052 |
| | | | | **P600-MISCELLANEOUS** |
| L603 | 1 | 1 | LY20480060 | Relay, 48V DC AR3423 |

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | | | | **P700-VOLTAGE AMP. CIRCUIT BOARD** |
| P700 | 1 | 1 | YK222H1320 | P.W. Board, Voltage Amp. |
| | 1 | | ZZ221H8320 | P.W. Board Assembly |
| | | | | **P700-CAPACITORS** |
| C701 | 1 | 1 | DF55101090 | Film 100pF ±5% |
| C702 | 1 | 1 | DF55101090 | Film 100pF ±5% |
| C703 | 1 | 1 | DF55271090 | Film 270pF ±5% |
| C704 | 1 | 1 | DF55271090 | Film 270pF ±5% |
| C709 | 1 | 1 | DF35270520 | Mica 27pF ±10% |
| C710 | 1 | 1 | DF35270520 | Mica 27pF ±10% |
| C711 | 1 | 1 | DF16474520 | Film 0.47µF ±10% |
| C712 | 1 | 1 | DF16474520 | Film 0.47µF |
| C715 | 1 | 1 | EA47701630 | Elect 470µF 16V |
| C716 | 1 | 1 | EA47701630 | Elect 470µF 16V |
| C771 | 1 | 1 | EA10703530 | Elect 100µF 35V |
| C772 | 1 | 1 | EA10703530 | Elect 100µF 35V |
| C773 | 1 | 1 | EA47601630 | Elect 47µF 16V |
| C775 | 1 | 1 | EA10710030 | Elect 100µF 100V |
| C776 | 1 | 1 | EA10710030 | Elect 100µF 100V |
| C777 | 1 | 1 | DF16102510 | Film 1000pF ±10% |
| C778 | 1 | 1 | DF16102510 | Film 1000pF ±10% |
| C779 | 1 | 1 | DF16102510 | Film 1000pF ±10% |
| C780 | 1 | 1 | DF16102510 | Film 1000pF ±10% |
| C781 | 1 | 1 | EQ47502530 | Elect 4.7µF 25V |
| C782 | 1 | 1 | EQ47502530 | Elect 4.7µF 25V |
| | | | | **P700-RESISTORS**<br>**(All Resistors are ±5% and ¼W)** |
| R701 | 1 | 1 | GD05473140 | 47KΩ |
| R702 | 1 | 1 | GD05473140 | 47KΩ |
| R703 | 1 | 1 | GM21446410 | 4.7KΩ |
| R704 | 1 | 1 | GM21446410 | 4.7KΩ |
| R705 | 1 | 1 | GD05561140 | 560Ω |
| R706 | 1 | 1 | GD05561140 | 560Ω |
| R707 | 1 | 1 | GD05561140 | 560Ω |
| R708 | 1 | 1 | GD05561140 | 560Ω |
| R709 | 1 | 1 | GD05222140 | 2.2KΩ |
| R710 | 1 | 1 | GD05222140 | 2.2KΩ |
| R711 | 1 | 1 | GD05222140 | 2.2KΩ |
| R712 | 1 | 1 | GD05222140 | 2.2KΩ |
| R713 | 1 | 1 | GD05102140 | 1KΩ |
| R714 | 1 | 1 | GD05102140 | 1KΩ |
| R715 | 1 | 1 | GD05102140 | 1KΩ |
| R716 | 1 | 1 | GD05102140 | 1KΩ |
| R717 | 1 | 1 | GD05473140 | 47KΩ |
| R718 | 1 | 1 | GD05473140 | 47KΩ |
| R721 | 1 | 1 | GD05101140 | 100Ω |
| R722 | 1 | 1 | GD05101140 | 100Ω |
| R723 | 1 | 1 | GD05331140 | 330Ω |
| R724 | 1 | 1 | GD05331140 | 330Ω |
| R725 | 1 | 1 | GD05154140 | 150KΩ |
| R726 | 1 | 1 | GD05154140 | 150KΩ |
| R727 | 1 | 1 | GD05682140 | 6.8KΩ |
| R728 | 1 | 1 | GD05682140 | 6.8KΩ |
| R729 | 1 | 1 | GD05181140 | 180Ω |
| R730 | 1 | 1 | GD05181140 | 180Ω |
| R731 | 1 | 1 | GD05561140 | 560Ω |
| R732 | 1 | 1 | GD05561140 | 560Ω |

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| R733 | 1 | 1 | GD05472140 | 4.7KΩ |
| R734 | 1 | 1 | GD05472140 | 4.7KΩ |
| R735 | 1 | 1 | GD05472140 | 4.7KΩ |
| R736 | 1 | 1 | GD05472140 | 4.7KΩ |
| R737 | 1 | 1 | GD05472140 | 4.7KΩ |
| R738 | 1 | 1 | GD05472140 | 4.7KΩ |
| R739 | 1 | 1 | GD05472140 | 4.7KΩ |
| R740 | 1 | 1 | GD05472140 | 4.7KΩ |
| R741 | 1 | 1 | GG05331140 | 330Ω |
| R742 | 1 | 1 | GG05331140 | 330Ω |
| R743 | 1 | 1 | GG05331140 | 330Ω |
| R744 | 1 | 1 | GG05331140 | 330Ω |
| R749 | 1 | 1 | GD05123140 | 12KΩ |
| R750 | 1 | 1 | GD05123140 | 12KΩ |
| R751 | 1 | 1 | GA05272020 | 2.7KΩ 2W |
| R752 | 1 | 1 | GA05182020 | 1.8KΩ 2W |
| R753 | 1 | 1 | GD05473140 | 47KΩ |
| R754 | 1 | 1 | GD05473140 | 47KΩ |
| R755 | 1 | 1 | GD05222140 | 2.2KΩ |
| R756 | 1 | 1 | GD05222140 | 2.2KΩ |
| R757 | 1 | 1 | GD05222140 | 2.2KΩ |
| R758 | 1 | 1 | GD05222140 | 2.2KΩ |
| R759 | 1 | 1 | GD05102140 | 1KΩ |
| R760 | 1 | 1 | GD05102140 | 1KΩ |
| R761 | 1 | 1 | GD05474140 | 470KΩ |
| R762 | 1 | 1 | GD05474140 | 470KΩ |
| R763 | 1 | 1 | GD05474140 | 470KΩ |
| R764 | 1 | 1 | GD05474140 | 470KΩ |
| R771 | 1 | 1 | GD05102140 | 1KΩ |
| R772 | 1 | 1 | GD05102140 | 1KΩ |
| R773 | 1 | 1 | GD05332140 | 3.3KΩ |
| R774 | 1 | 1 | GD05332140 | 3.3KΩ |
| R775 | 1 | 1 | GD05272140 | 2.7KΩ |
| R776 | 1 | 1 | GD05272140 | 2.7KΩ |
| R777 | 1 | 1 | GA05153010 | 15KΩ 1W |
| R779 | 1 | 1 | GD05123140 | 12KΩ |
| R780 | 1 | 1 | GD05473140 | 47KΩ |
| R781 | 1 | 1 | GD05332140 | 3.3KΩ |
| R782 | 1 | 1 | GD05473140 | 47KΩ |
| R783 | 1 | 1 | GD05821140 | 820Ω |
|  |  |  |  | **P700-SEMICONDUCTORS** |
| Q701 | 1 | 1 | HC10042060 | IC µPA68H |
| Q702 | 1 | 1 | HC10042060 | IC µPA68H |
| Q703 | 1 | 1 | HT322592F0 | Transistor 2SC2259(F or G) |
| Q704 | 1 | 1 | HT322592F0 | Transistor 2SC2259(F or G) |
| Q705 | 2 | 2 | HT108722B0 | Transistor 2SA872(D or E) x 2 |
| Q706 | 2 | 2 | HT108722B0 | Transistor 2SA872(D or E) x 2 |
| Q707 | 1 | 1 | HT322402A0 | Transistor 2SC2240(GR or BL) |
| Q708 | 1 | 1 | HT322402A0 | Transistor 2SC2240(GR or BL) |
| Q709 | 1 | 1 | HT109702A0 | Transistor 2SA970(GR or BL) |
| Q710 | 1 | 1 | HT109702A0 | Transistor 2SA970(GR or BL) |
| Q713 | 1 | 1 | HT109702A0 | Transistor 2SA970(GR or BL) |
| Q714 | 1 | 1 | HT109702A0 | Transistor 2SA970(GR or BL) |
| Q715 | 1 | 1 | HT322402A0 | Transistor 2SC2240(GR or BL) |
| Q716 | 1 | 1 | HT322402A0 | Transistor 2SC2240(GR or BL) |
| Q717 | 1 | 1 | HT111242R0 | Transistor 2SA1124(R or S) |

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| Q718 | 1 | 1 | HT111242R0 | Transistor 2SA1124(R or S) |
| Q719 | 1 | 1 | HT326322R0 | Transistor 2SA2632(R or S) |
| Q720 | 1 | 1 | HT326322R0 | Transistor 2SA2632(R or S) |
| Q721 | 1 | 1 | HC10007090 | IC NJM4560 |
| Q722 | 1 | 1 | HC10007090 | IC NJM4560 |
| Q723 | 1 | 1 | HD30025090 | Zener WZ-150 |
| Q724 | 1 | 1 | HD30025090 | Zener WZ-150 |
| Q725 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q726 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q727 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q728 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q729 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q730 | 1 | 1 | HD20011050 | Diode 1S1555 |
| Q771 | 1 | 1 | HT322382E0 | Transistor 2SC2238(O or Y) |
| Q772 | 1 | 1 | HT109682E0 | Transistor 2SC968(O or Y) |
| Q773 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |
| Q774 | 1 | 1 | HT108722D0 | Transistor 2SA872A(D or E) |
| Q775 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |
| Q776 | 1 | 1 | HT108722D0 | Transistor 2SA872A(D or E) |
| Q777 | 1 | 1 | HD30009010 | Zener HZ12B2L |
|  |  |  |  | **PC00-RIPPLE FILTER CIRCUIT BOARD** |
| PC00 | 1 | 1 | YH221H0210 | P.W. Board, Ripple Filter |
|  | 1 |  | ZZ221H0210 | P.W. Board Assembly |
|  |  |  |  | **PC00-CAPACITORS** |
| CM31 | 1 | 1 | EA10702530 | Elect 100µF 25V |
| CM32 | 1 | 1 | EA10702530 | Elect 100µF 25V |
|  |  |  |  | **PC00-RESISTORS** |
| RM51 | 1 | 1 | GA05221010 | 220Ω ±5% 1W |
| RM52 | 1 | 1 | GA05221010 | 220Ω ±5% 1W |
| RM53 | 1 | 1 | GD05392140 | 3.9KΩ ±5% ¼W |
| RM54 | 1 | 1 | GD05392140 | 3.9KΩ ±5% ¼W |
| RM55 | 1 | 1 | GD05682140 | 6.8KΩ ±5% ¼W |
| RM56 | 1 | 1 | GD05682140 | 6.8KΩ ±5% ¼W |
|  |  |  |  | **PC00-SEMICONDUCTORS** |
| QM31 | 1 | 1 | HT322382E0 | Transistor 2SC2238(O, Y) |
| QM32 | 1 | 1 | HT109682E0 | Transistor 2SA968(O, Y) |
|  |  |  |  | **PE01-TONE AMP. CIRCUIT BOARD** |
| PE01 | 1 | 1 | YK221H1810 | P.W. Board, Tone Amp. |
|  | 1 |  | ZZ221H8810 | P.W. Board Assembly |
|  |  |  |  | **PE01-CAPACITORS** |
| CE01 | 1 | 1 | EA33505030 | Elect 3.3µF 50V |
| CE03 | 1 | 1 | DF35101520 | Mica 100pF ±5% 250V |
| CE05 | 1 | 1 | DF35101520 | Mica 100pF ±5% 250V |
| CE07 | 1 | 1 | DF15103300 | Film 0.01µF ±5% |
| CE09 | 1 | 1 | DF15103300 | Film 0.01µF ±5% |
| CE11 | 1 | 1 | DF55821090 | Film 820pF ±5% |
| CE13 | 1 | 1 | DF35560520 | Mica 56pF ±5% 250V |
| CE15 | 1 | 1 | EA10605030 | Elect 10µF 50V |
| CE17 | 1 | 1 | EA22602530 | Elect 22µF 25V |
| CE51 | 1 | 1 | EA33603530 | Elect 33µF 35V |
| CE53 | 1 | 1 | EA22602530 | Elect 22µF 25V |
| CE55 | 1 | 1 | EA22602530 | Elect 22µF 25V |

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **PE01-RESISTORS** |
| | | | | **(All Resistors are ±5% and ¼W)** |
| RE01 | 1 | 1 | GD05103140 | 10KΩ |
| RE03 | 1 | 1 | GD05103140 | 10KΩ |
| RE05 | 1 | 1 | GD05472140 | 4.7KΩ |
| RE07 | 1 | 1 | GD05103140 | 10KΩ |
| RE09 | 1 | 1 | GD05103140 | 10KΩ |
| RE11 | 1 | 1 | GD05103140 | 10KΩ |
| RE13 | 1 | 1 | GD05393140 | 39KΩ |
| RE15 | 1 | 1 | GD05393140 | 39KΩ |
| RE17 | 1 | 1 | GD05103140 | 10KΩ |
| RE19 | 1 | 1 | RK01040190 | 100KΩ(B) Variable |
| RE21 | 1 | 1 | RK01040190 | 100KΩ(B) Variable |
| RE23 | 1 | 1 | GD05470140 | 47Ω |
| RE25 | 1 | 1 | GD05103140 | 10KΩ |
| RE51 | 1 | 1 | GG05271120 | 270Ω T ½W |
| RE53 | 1 | 1 | G005182140 | 1.8KΩ |
| | | | | **PE01-SEMICONDUCTORS** |
| QE01 | 1 | 1 | HC10007090 | IC NJM4560 |
| QE51 | 1 | 1 | HT405712B0 | Transistor 2SD571(L or K) |
| QE53 | 1 | 1 | HD30014010 | Zener HZ16L |
| | | | | **PE02-CAPACITORS** |
| CE02 | 1 | 1 | EA33505030 | Elect 3.3μF 50V |
| CE04 | 1 | 1 | DF35101520 | Mica 100μF ±5% 250V |
| CE06 | 1 | 1 | DF35101520 | Mica 100μF ±5% 250V |
| CE08 | 1 | 1 | DF15103300 | Film 0.01μF ±5% |
| CE10 | 1 | 1 | DF15103300 | Film 0.01μF ±5% |
| CE12 | 1 | 1 | DF55821090 | Film 820pF ±5% |
| CE14 | 1 | 1 | DF35560520 | Mica 56pF ±5% 250V |
| CE16 | 1 | 1 | EA10605030 | Elect 10μF 50V |
| CE18 | 1 | 1 | EA22602530 | Elect 22μF 25V |
| CE52 | 1 | 1 | EA33603530 | Elect 33μF 35V |
| CE54 | 1 | 1 | EA22602530 | Elect 22μF 25V |
| CE56 | 1 | 1 | EA22602530 | Elect 22μF 25V |
| | | | | **PE02-RESISTORS** |
| | | | | **(All Resistors are ±5% and ¼W)** |
| RE02 | 1 | 1 | GD05103140 | 10KΩ |
| RE04 | 1 | 1 | GD05103140 | 10KΩ |
| RE06 | 1 | 1 | GD05472140 | 4.7KΩ |
| RE08 | 1 | 1 | GD05103140 | 10KΩ |
| RE10 | 1 | 1 | GD05103140 | 10KΩ |
| RE12 | 1 | 1 | GD05103140 | 10KΩ |
| RE14 | 1 | 1 | GD05393140 | 39KΩ |
| RE16 | 1 | 1 | GD05393140 | 39KΩ |
| RE18 | 1 | 1 | GD05103140 | 10KΩ |
| RE20 | 1 | 1 | RK01040190 | 100KΩ(B) Variable |
| RE22 | 1 | 1 | RK01040190 | 100KΩ(B) Variable |
| RE24 | 1 | 1 | GD05470140 | 47Ω |
| RE26 | 1 | 1 | GD05103140 | 10KΩ |
| RE52 | 1 | 1 | GG05271120 | 270Ω ½W |
| RE54 | 1 | 1 | GD05182140 | 1.8KΩ |
| | | | | **PE02-SEMICONDUCTORS** |
| QE02 | 1 | 1 | HC10007090 | IC NJM4560 |
| QE52 | 1 | 1 | HT206052B0 | Transistor 2SB605(L, K) |
| QE54 | 1 | 1 | HD30014010 | Zener HZ16L |
| | | | | **PF00-LOUDNESS CIRCUIT BOARD** |
| PF00 | 1 | 1 | YK221H1850 | P.W. Board, Loudness |
| | 1 | | ZZ221H8850 | P.W. Board Assembly |
| | | | | **PF00-CAPACITORS** |
| CF01 | 1 | 1 | DF15473300 | Film 0.047μF ±5% |
| CF02 | 1 | 1 | DF15473300 | Film 0.047μF ±5% |
| CF03 | 1 | 1 | DF15683300 | Film 0.068μF ±5% |
| CF04 | 1 | 1 | DF15683300 | Film 0.068μF ±5% |

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **PF00-RESISTORS** |
| RF01 | 1 | 1 | GD05822140 | 8.2KΩ ±5% ¼W |
| RF02 | 1 | 1 | GD05822140 | 8.2KΩ ±5% ¼W |
| | | | | **PF00-SWITCH** |
| SF01 | 1 | 1 | SC02030140 | Switch, Loudness |
| | | | | **PG00-MODE/BALANCE/VOL. CIRCUIT BOARD** |
| PG00 | 1 | 1 | YK21441310 | P.W. Board, Mode/Balance/Vol. |
| | 1 | | ZZ21448310 | P.W. Board Assembly |
| | | | | **PG00-RESISTORS** |
| RG01 | 1 | 1 | RM01040510 | 100KΩ X2 Variable |
| RG02 | 1 | 1 | RM01040500 | 100KΩ X2 Variable |
| | | | | **PG00-SWITCH** |
| SG01 | 1 | 1 | SR04050250 | Rotary Switch, Mode |
| | | | | **PH00-FILTER CIRCUIT BOARD** |
| PH00 | 1 | 1 | YK221H1860 | P.W. Board, Filter |
| | 1 | | ZZ221H8860 | P.W. Board Assembly |
| | | | | **PH00-CAPACITORS** |
| CH01 | 1 | 1 | EQ10602530 | Elect 10μF 25V |
| CH02 | 1 | 1 | EQ10602530 | Elect 10μF 25V |
| CH03 | 1 | 1 | EQ10505030 | Elect 1μF 50V |
| CH04 | 1 | 1 | EQ10505030 | Elect 1μF 50V |
| CH05 | 1 | 1 | EQ47502530 | Elect 4.7μF 25V |
| CH06 | 1 | 1 | EQ47502530 | Elect 4.7μF 25V |
| CH09 | 1 | 1 | DF55121090 | Film 120pF ±5% |
| CH10 | 1 | 1 | DF55121090 | Film 120pF ±5% |
| CH11 | 1 | 1 | DF55182090 | Film 1800pF ±5% |
| CH12 | 1 | 1 | DF55182090 | Film 1800pF ±5% |
| CH13 | 1 | 1 | EQ10602530 | Elect 10μF 25V |
| CH14 | 1 | 1 | EQ10602530 | Elect 10μF 25V |
| | | | | **PH00-RESISTORS** |
| | | | | **(All Resistors are ±5% and ¼W)** |
| RH01 | 1 | 1 | GD05473140 | 47KΩ |
| RH02 | 1 | 1 | GD05473140 | 47KΩ |
| RH03 | 1 | 1 | GD05222140 | 2.2KΩ |
| RH04 | 1 | 1 | GD05222140 | 2.2KΩ |
| RH05 | 1 | 1 | GD05104140 | 100KΩ |
| RH06 | 1 | 1 | GD05104140 | 100KΩ |
| RH07 | 1 | 1 | GD05102140 | 1KΩ |
| RH08 | 1 | 1 | GD05102140 | 1KΩ |
| RH09 | 1 | 1 | GD05103140 | 10KΩ |
| RH10 | 1 | 1 | GD05103140 | 10KΩ |
| RH11 | 1 | 1 | GD05103140 | 10KΩ |
| RH12 | 1 | 1 | GD05103140 | 10KΩ |
| | | | | **PH00-SEMICONDUCTOR** |
| QH01 | 1 | 1 | HC10007090 | IC NJM4560 |
| | | | | **PH00-SWITCH** |
| SH01 | 1 | 1 | SP02020260 | Push Switch, Filter |
| | | | | **PJ00-TEST POINT CIRCUIT BOARD** |
| PJ00 | 1 | 1 | YK222H1430 | P.W. Board, Test Point |
| | | | | **PJ01-AC TERMINAL CIRCUIT BOARD** |
| PJ01 | 1 | | YK222H1440 | P.W. Board, AC Terminal |

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **PK00-A-B POWER SWITCH CIRCUIT BOARD** |
| PK00 | 1 | 1 | YK222H1420 | P.W. Board, A-B Power SW |
| | 1 | | ZZ222H1420 | P.W. Board Assembly |
| | | | | **PK00-CAPACITOR** |
| CK01 | 1 | 1 | DF55471090 | Film 470pF ±5% |
| | | | | **PK00-RESISTORS** |
| RK01 | 1 | 1 | GD05222140 | 2.2KΩ ¼W |
| RK02 | 1 | 1 | GD05102140 | 1KΩ ¼W |
| RK03 | 1 | 1 | GG05152120 | 1.5KΩ ½W |
| RK04 | 1 | 1 | GG05152120 | 1.5KΩ ½W |
| RK05 | 1 | 1 | GA05222010 | 2.2KΩ 1W |
| RK06 | 1 | 1 | GA05222010 | 2.2KΩ 1W |
| | | | | **PK00-SEMICONDUCTORS** |
| QK01 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |
| QK02 | 1 | 1 | HT108722D0 | Transistor 2SA872(D or E) |
| QK03 | 1 | 1 | HT309452B0 | Transistor 2SC945(P or Q) |
| QK04 | 1 | 1 | HT107332A0 | Transistor 2SC733(P or Q) |
| QK05 | 1 | 1 | HT322382E0 | Transistor 2SC2238(O or Y) |
| QK06 | 1 | 1 | HT109682E0 | Transistor 2SA968(O or Y) |
| QK07 | 1 | 1 | HT328372A0 | Transistor 2SC2837(R or O) |
| QK08 | 1 | 1 | HT111862A0 | Transistor 2SC1186(R or O) |
| QK09 | 1 | 1 | HT328372A0 | Transistor 2SC2837(R or O) |
| QK10 | 1 | 1 | HT111862A0 | Transistor 2SC1186(R or O) |
| QK11 | 1 | 1 | HD20027100 | Diode 30DF-2 |
| QK12 | 1 | 1 | HD20027100 | Diode 30DF-2 |
| | | | | **PL00-A-B DETECTOR CIRCUIT BOARD** |
| PL00 | 1 | 1 | YK222H1410 | P.W. Baord, A-B Detector |
| | 1 | | ZZ222H1410 | P.W. Board Assembly |
| | | | | **PL00-CAPACITORS** |
| CL01 | 1 | 1 | DF16332300 | Film 3300pF ±10% |
| CL02 | 1 | 1 | DF16332300 | Film 3300pF ±10% |
| CL03 | 1 | 1 | EA10601630 | Elect 10μF 16V |
| CL04 | 1 | 1 | EA10601630 | Elect 10μF 16V |
| CL05 | 1 | 1 | DK16221300 | Ceramic 220pF ±10% 50V |
| CL06 | 1 | 1 | DK16221300 | Ceramic 220pF ±10% 50V |
| CL07 | 1 | 1 | DD15220370 | Ceramic 22pF ±5% 50V |
| CL08 | 1 | 1 | DD15220370 | Ceramic 22pF ±5% 50V |
| CL09 | 1 | 1 | EA10601630 | Elect 10μF 16V |
| CL10 | 1 | 1 | EA10601630 | Elect 10μF 16V |
| CL11 | 1 | 1 | DF55821090 | Film 820pF ±5% |
| CL12 | 1 | 1 | DF55821090 | Film 820pF ±5% |
| CL13 | 1 | 1 | DD15220370 | Ceramic 22pF ±5% 50V |
| CL14 | 1 | 1 | EA10601630 | Elect 10μF 16V |
| CL15 | 1 | 1 | EA10602530 | Elect 10μF 25V |
| CL16 | 1 | 1 | EA10602530 | Elect 10μF 25V |
| CL17 | 1 | 1 | DD15101370 | Ceramic 100pF ±5% |
| CL18 | 1 | 1 | DD15101370 | Ceramic 100pF ±5% |

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **PL00-RESISTORS**<br>**(All Resistors are ±5% and ¼W)** |
| RL01 | 1 | 1 | GD05103140 | 10KΩ |
| RL02 | 1 | 1 | GD05103140 | 10KΩ |
| RL03 | 1 | 1 | GD05153140 | 15KΩ |
| RL04 | 1 | 1 | GD05153140 | 15KΩ |
| RL05 | 1 | 1 | GD05472140 | 4.7KΩ |
| RL06 | 1 | 1 | GD05472140 | 4.7KΩ |
| RL07 | 1 | 1 | GD05103140 | 10KΩ |
| RL08 | 1 | 1 | GD05103140 | 10KΩ |
| RL09 | 1 | 1 | RA05020130 | 4.7KΩ, Trimming |
| RL10 | 1 | 1 | RA05020130 | 4.7KΩ, Trimming |
| RL11 | 1 | 1 | GD05222140 | 2.2KΩ |
| RL12 | 1 | 1 | GD05222140 | 2.2KΩ |
| RL13 | 1 | 1 | GD05104140 | 100KΩ |
| RL14 | 1 | 1 | GD05104140 | 100KΩ |
| RL15 | 1 | 1 | GD05104140 | 100KΩ |
| RL16 | 1 | 1 | GD05104140 | 100KΩ |
| RL17 | 1 | 1 | GD05103140 | 10KΩ |
| RL18 | 1 | 1 | GD05103140 | 10KΩ |
| RL19 | 1 | 1 | GD05222140 | 2.2KΩ |
| RL20 | 1 | 1 | GD05222140 | 2.2KΩ |
| RL21 | 1 | 1 | GD05223140 | 22KΩ |
| RL22 | 1 | 1 | GD05223140 | 22KΩ |
| RL23 | 1 | 1 | GD05222140 | 2.2KΩ |
| RL24 | 1 | 1 | GD05222140 | 2.2KΩ |
| RL25 | 1 | 1 | GD05104140 | 100KΩ |
| RL26 | 1 | 1 | GD05104140 | 100KΩ |
| RL27 | 1 | 1 | GD05104140 | 100KΩ |
| RL28 | 1 | 1 | GD05104140 | 100KΩ |
| RL29 | 1 | 1 | GD05223140 | 22KΩ |
| RL30 | 1 | 1 | GD05223140 | 22KΩ |
| RL31 | 1 | 1 | RA02220100 | 2.2KΩ, Trimming |
| RL32 | 1 | 1 | GD05104140 | 100KΩ |
| RL33 | 1 | 1 | GD05473140 | 47KΩ |
| RL34 | 1 | 1 | GD05104140 | 100KΩ |
| RL35 | 1 | 1 | GD05471140 | 470Ω |
| RL36 | 1 | 1 | GD05222140 | 2.2KΩ |
| RL37 | 1 | 1 | GD05123140 | 12KΩ |
| RL38 | 1 | 1 | GD05123140 | 12KΩ |
| RL39 | 1 | 1 | RA01030070 | 10KΩ, Trimming |
| RL40 | 1 | 1 | RA01030070 | 10KΩ, Trimming |
| RL41 | 1 | 1 | GD05223140 | 22KΩ |
| RL42 | 1 | 1 | GD05223140 | 22KΩ |
| RL43 | 1 | 1 | RA02230040 | 22KΩ, Trimming |
| RL44 | 1 | 1 | RA02230040 | 22KΩ, Trimming |

● (E): for Europe
● (F): for Japan

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | | | | **PL00-SEMICONDUCTORS** |
| QL01 | 1 | 1 | HC10013370 | IC TL4558 |
| QL02 | 1 | 1 | HC10013370 | IC TL4558 |
| QL03 | 1 | 1 | HC10009090 | IC NJM2901 |
| QL04 | 1 | 1 | HC712200A0 | IC HD74LS122 |
| QL05 | 1 | 1 | HW10001320 | Photo Unit PC627 |
| QL06 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL07 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL08 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL09 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL10 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL11 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL12 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL13 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL14 | 1 | 1 | HD20001210 | Diode 1S2473 |
| QL15 | 1 | 1 | HT309452B0 | Transistor 2SC945(P or Q) |
| | | | | **PM01-MC TRANSISTOR BLOCK CIRCUIT BOARD** |
| PM01 | 1 | 1 | YK21441320 | P.W. Board, MC Transistor Block |
| | 1 | | ZZ21448320 | P.W. Board Assembly |
| | | | | **PM01-RESISTORS** |
| RM35 | 1 | 1 | GF05100140 | 10Ω ±5% ¼W |
| RM36 | 1 | 1 | GF05100140 | 10Ω ±5% ¼W |
| RM37 | 1 | 1 | GF05100140 | 10Ω ±5% ¼W |
| RM38 | 1 | 1 | GF05100140 | 10Ω ±5% ¼W |
| | | | | **PM01-SEMICONDUCTORS** |
| QM01 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM02 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM03 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM04 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM05 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM06 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM07 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM08 | 1 | 1 | HT325451E0 | Transistor 2SC2545(E) |
| QM09 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM10 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM11 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM12 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM13 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM14 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM15 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM16 | 1 | 1 | HT110831E0 | Transistor 2SA1083(E) |
| QM17 | 1 | 1 | HT108722D0 | Transistor 2SA872A(D or E) |
| QM18 | 1 | 1 | HT108722D0 | Transistor 2SA872A(D or E) |
| QM19 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |
| QM20 | 1 | 1 | HT317752D0 | Transistor 2SC1775A(D or E) |

| REF. DESIG. | Q'TY E | Q'TY F | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| QM21 | 1 | 1 | HT323201F0 | Transistor 2SC2320(E or F) |
| QM22 | 1 | 1 | HT323201F0 | Transistor 2SC2320(E or F) |
| QM23 | 1 | 1 | HT406661C0 | Transistor 2SD666(C) |
| QM24 | 1 | 1 | HT406661C0 | Transistor 2SD666(C) |
| QM25 | 1 | 1 | HT206461C0 | Transistor 2SB646(C) |
| QM26 | 1 | 1 | HT206461C0 | Transistor 2SB646(C) |
| | | | | **PM01-PLUGS** |
| J410 | 1 | 1 | YP06000750 | Plug, (14P) |
| J411 | 1 | 1 | YP06000750 | Plug, (14P) |
| | | | | **PN00-ASO PROTECTOR CIRCUIT BOARD** |
| PN00 | 1 | 1 | YK22870210 | P.W. Board, ASO Protector |
| | 1 | | ZZ22870210 | P.W. Board Assembly |
| | | | | **PN00-CAPACITORS** |
| CN01 | 1 | 1 | DF16222350 | Film 2200pF ±10% |
| CN02 | 1 | 1 | DF16222350 | Film 2200pF ±10% |
| CN03 | 1 | 1 | DF16222350 | Film 2200pF ±10% |
| CN04 | 1 | 1 | DF16222350 | Film 2200pF ±10% |
| | | | | **PN00-RESISTORS**<br>**(All Resistors are ±5% and ¼W)** |
| RN01 | 1 | 1 | GD05331140 | 330Ω |
| RN02 | 1 | 1 | GD05331140 | 330Ω |
| RN03 | 1 | 1 | GD05331140 | 330Ω |
| RN04 | 1 | 1 | GD05331140 | 330Ω |
| RN09 | 1 | 1 | GD05472140 | 4.7KΩ |
| RN10 | 1 | 1 | GD05472140 | 4.7KΩ |
| RN11 | 1 | 1 | GD05472140 | 4.7KΩ |
| RN12 | 1 | 1 | GD05472140 | 4.7KΩ |
| RN13 | 1 | 1 | GD05273140 | 27KΩ |
| RN14 | 1 | 1 | GD05273140 | 27KΩ |
| | | | | **PN00-SEMICONDUCTORS** |
| QN01 | 1 | 1 | HT309452C0 | Transistor 2SC945(P or K) |
| QN02 | 1 | 1 | HT309452C0 | Transistor 2SC945(P or K) |
| QN03 | 1 | 1 | HT107332C0 | Transistor 2SA733(P or K) |
| QN04 | 1 | 1 | HT107332C0 | Transistor 2SA733(P or K) |
| QN05 | 1 | 1 | HD20011050 | Diode 1S1555 |
| QN06 | 1 | 1 | HD20011050 | Diode 1S1555 |
| QN07 | 1 | 1 | HD20011050 | Diode 1S1555 |
| QN08 | 1 | 1 | HD20011050 | Diode 1S1555 |
| QN09 | 1 | 1 | HD20002210 | Diode 1S2472 |
| QN10 | 1 | 1 | HD20002210 | Diode 1S2472 |
| QN11 | 1 | 1 | HD20002210 | Diode 1S2472 |
| QN12 | 1 | 1 | HD20002210 | Diode 1S2472 |

- (E): for Europe
- (F): for Japan

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **PS00-TONE ON-OFF CIRCUIT BOARD** |
| PS00 | 1 | 1 | YK221H1820 | P.W. Board, Tone ON-OFF |
| | 1 | | ZZ221H8820 | P.W. Board Assembly |
| | | | | **PS00-RESISTORS** |
| RS01 | 1 | 1 | GD05103140 | 10KΩ ±5% ¼W |
| RS02 | 1 | 1 | GD05103140 | 10KΩ ±5% ¼W |
| | | | | **PS00-SWITCH** |
| SS01 | 1 | 1 | SC04020200 | Switch, Tone ON-OFF |
| | | | | **PV00-PHONO INPUT CIRCUIT BOARD** |
| PV00 | 1 | 1 | YK221H1830 | P.W. Board, Phono Input |
| | 1 | | ZZ221H8830 | P.W. Board Assembly |
| CV01 | 1 | 1 | DK18473320 | Ceramic Cap. 0.047μF |
| CV02 | 1 | 1 | DK18473320 | Ceramic Cap. 0.047μF |
| JV01 | 1 | 1 | YT02040320 | Terminal, (4P) RCA |
| | | | | **PW00-SPEAKER SWITCH CIRCUIT BOARD** |
| PW00 | 1 | 1 | YK221H1870 | P.W. Board, Speaker Switch |
| | 1 | | ZZ221H8870 | P.W. Board Assembly |
| RW01 | 1 | 1 | GA05271010 | Resistor 270Ω ±5% 1W |
| RW02 | 1 | 1 | GA05271010 | Resistor 270Ω ±5% 1W |
| SW01 | 1 | 1 | SP04020200 | Push Switch, Speaker |

| REF. DESIG. | Q'TY | | PART NO. | DESCRIPTION |
|---|---|---|---|---|
| | E | F | | |
| | | | | **PX00-HEAD PHONE CIRCUIT BOARD** |
| PX00 | 1 | 1 | YK21441540 | P.W. Board, Head Phone |
| | 1 | | ZZ21448540 | P.W. Board Assembly |
| JX01 | 1 | 1 | YJ01001400 | Jack, Head Phone |
| | | | | **PY00-L.E.D. POWER IND. CIRCUIT BOARD** |
| PY00 | 1 | 1 | YK221H1880 | P.W. Board, L.E.D. Power Ind. |
| | 1 | | ZZ221H8880 | P.W. Board Assembly |
| QY01 | 1 | 1 | HI10004030 | L.E.D. SLP132B |

| | |
|---|---|
| (W01-99) | Assembly and Wiring |
| (T01-99) | Adjustment |
| (X01-00) | Correction |

**NOTE ON SAFETY:**

**Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.**

## 10. TECHNICAL SPECIFICATIONS

### AUDIO SECTION

| | |
|---|---|
| POWER OUTPUT RATING PER CHANNEL | |
| 4 OHMS RMS (20 Hz – 20 kHz) | 150 W |
| 8 OHMS RMS (20 Hz – 20 kHz, Class AB) | 120 W |
| TOTAL HARMONIC DISTORTION AT RMS 8 OHMS | 0.03 % |
| I.M. DISTORTION | 0.03 % |
| DAMPING FACTOR 8 OHMS (1 kHz) | 120 |

### MM CARTRIDGE INPUT

| | | |
|---|---|---|
| Frequency Response (RIAA) | | ±0.3 dB |
| Signal-to-Noise Ration ("A" Weighted 7.75 mV Input) | | 90 dB |
| Input Impedance | Phono 1 | 47 kHz |
| | Phono 2 | 100/47/27 kHz |
| Input Sensitivity | | 2.2 mV |
| Equivalent Noise at Input ("A" Weighted) | | 0.24 µV |
| Dynamic Range | | 110 dB |

### MC CARTRIDGE INPUT

| | |
|---|---|
| Input Sensitivity | 220 µV |
| Input Impedance | 75 ohms |

### AUX. INPUT

| | |
|---|---|
| Input Impedance | 33 k ohms |
| Input Sensitivity | 150 mV |
| Frequency Response (±1 dB Tone out) | 10 Hz – 80 kHz |
| Signal-to-Noise Ratio ("A" Weighted Input Shorted) | 98 dB |

### OUTPUT VOLTAGE

| | |
|---|---|
| Tape Out | 150 mV |

### OUTPUT IMPEDANCE

| | |
|---|---|
| Tape Out | 560 ohms |

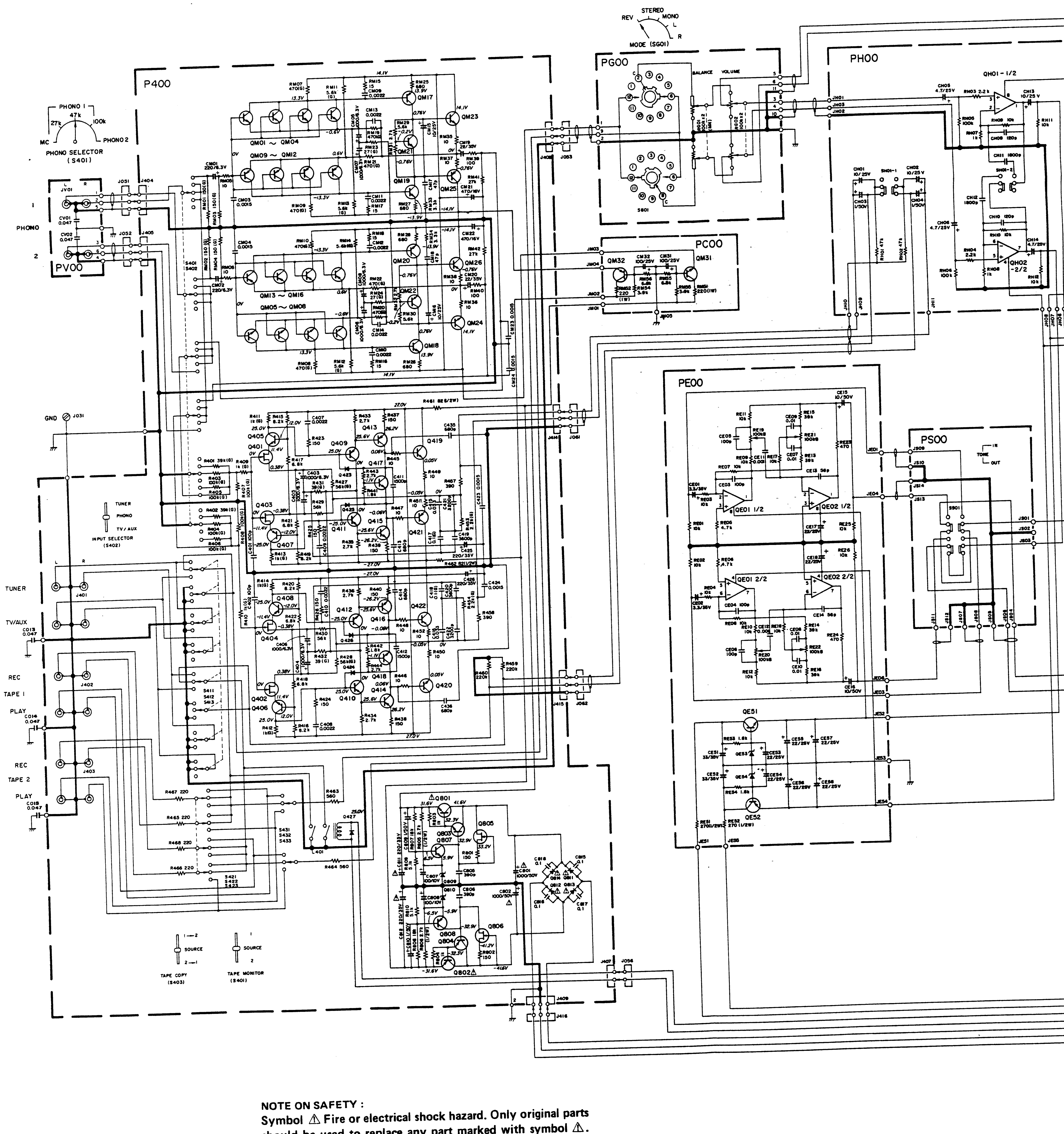
### GENERAL

| | |
|---|---|
| Power Requirements | 110/120/220/240 V AC, 50/60 Hz<br>(Voltage selection can be done by external voltage selector.) |
| Power Consumption at Rated Output, Both Channels Operating | 500 W |
| Dimensions | |
| Panel Width | 416 mm |
| Panel Height | 146 mm |
| Depth | 332 mm |
| Weight | |
| Unit alone | 15.5 kg |

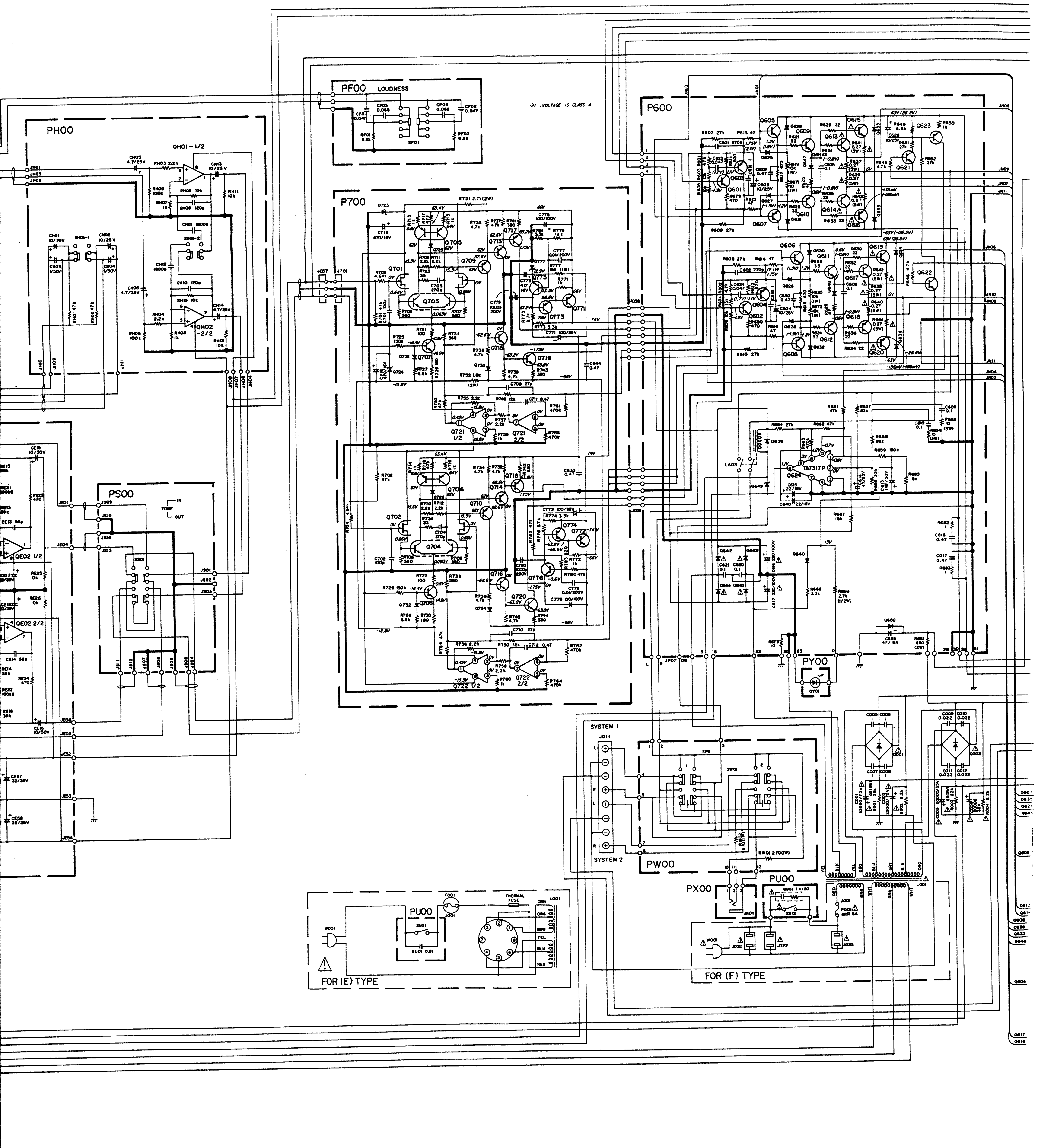
Specifications and appearance are subject to change for modification without notice.

MEMORANDUM

## 11. SCHEMATIC DIAGRAM

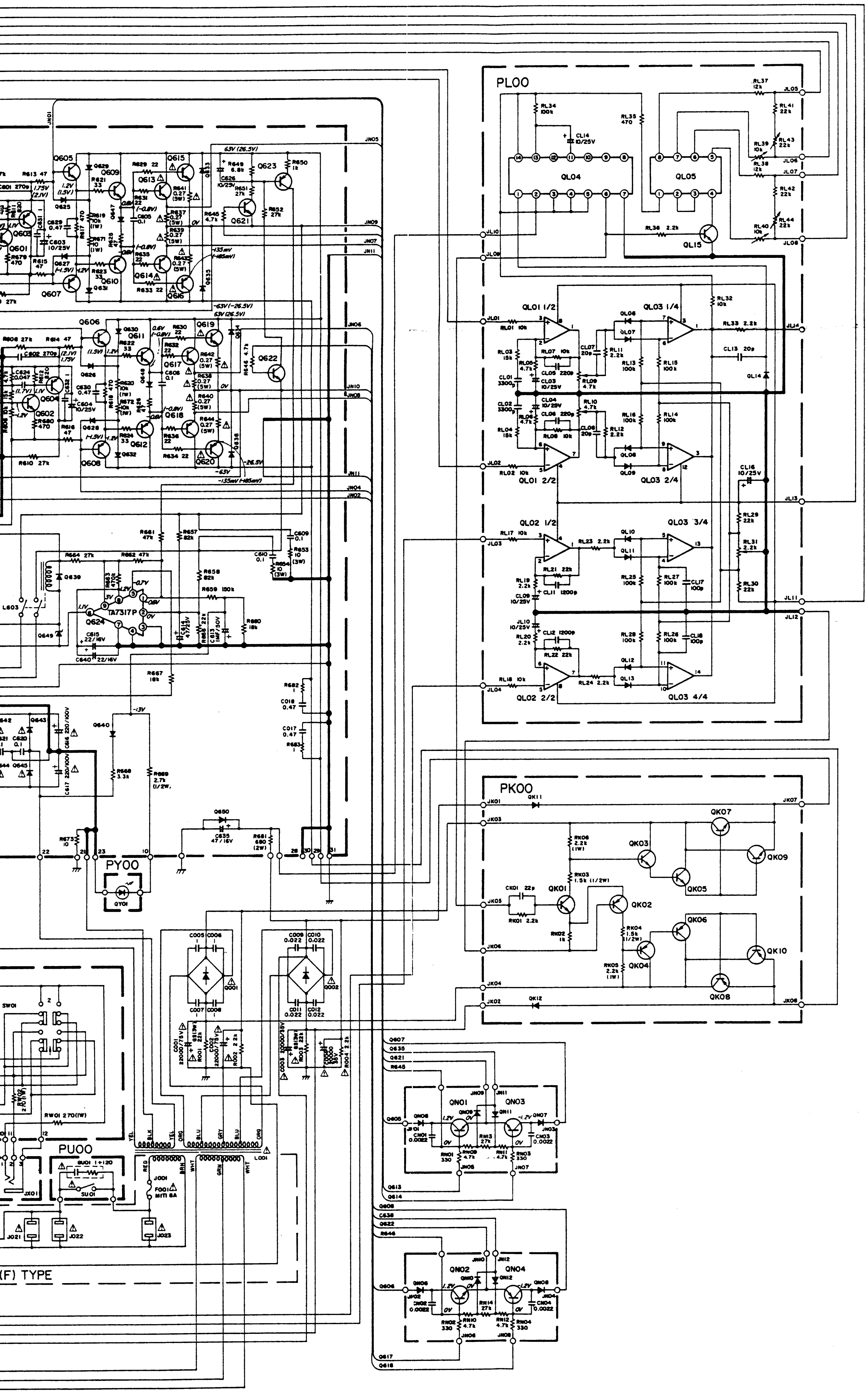

STEREO
REV
MONO
L
R
MODE (SG01)
P400
PG00
PH00
PC00
PE00
PS00
PV00
PHONO 1
PHONO 2
MC
PHONO SELECTOR (S401)
PHONO
GND
TUNER
TV/AUX
REC
TAPE 1
PLAY
TAPE 2
INPUT SELECTOR (S402)
TAPE COPY (S403)
TAPE MONITOR (S401)
SOURCE
BALANCE
VOLUME
S801
QM01 ~ QM04
QM09 ~ QM12
QM13 ~ QM16
QM05 ~ QM08
QM17
QM19
QM21
QM23
QM25
QM20
QM22
QM26
QM18
QM24
QM31
QM32
Q401
Q402
Q403
Q404
Q405
Q406
Q407
Q408
Q409
Q410
Q411
Q412
Q413
Q414
Q415
Q416
Q417
Q418
Q419
Q420
Q421
Q422
Q427
L401
Q801
Q802
Q803
Q804
Q805
Q806
Q807
Q808
QH01 - 1/2
QH02 - 2/2
QE01 1/2
QE01 2/2
QE02 1/2
QE02 2/2
QE51
QE52
IN
TONE
OUT
S901

NOTE ON SAFETY :
Symbol ⚠ Fire or electrical shock hazard. Only original parts should be used to replace any part marked with symbol ⚠. Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.


PF00 LOUDNESS
PH00
QH01-1/2
QH02-2/2
P700
P600
PS00
PY00
PW00
PX00
PU00
SYSTEM 1
SYSTEM 2
SPK
SW01
TA7317P
Q624
FOR (E) TYPE
FOR (F) TYPE
THERMAL FUSE
*1 VOLTAGE IS CLASS A
QE02 1/2
QE02 2/2

**Components and wiring are subject to change for modification**

# Model Pm-6a



| | |
|---|---|
| Q001 | S5VB-20 |
| Q002 | S4VB-20 |
| Q401, Q402 | 2SK151(F,G) |
| Q403, Q404 | 2SJ51(G,F) |
| Q405, Q406 | 2SC2240(B,L) |
| Q407, Q408 | 2SA970(BL) |
| Q409, Q410 | 2SA970(GR) |
| Q411, Q412 | 2SC2240(GR) |
| Q413, Q414, Q623 | 2SA872A(DE) |
| Q415, Q416, Q | 2SC1775A(D,E) |
| Q417, Q418 | 2SC2320(F) |
| Q419, Q420 | 2SC2591(Q,R) |
| Q421, Q422 | 2SA1111(Q,R) |
| Q423～Q427 | 1SS81 |
| Q601, Q602 | 2SC1568(S) |
| Q603, Q604, Q623 | 2SA1015(O,Y) |
| Q605, Q606 | 2SC2632(R,S) |
| Q607, Q608 | 2SA1124(R,S) |
| Q609, Q611 | 2SC259(Q,R) |
| Q610, Q612 | 2SA1111(Q,R) |
| Q613, Q615, Q617, Q619 | 2SC2706(R,O) |
| Q614, Q616, Q618, Q620 | 2SA1146(R,O) |
| Q621, Q622 | 2SC1815(O,Y) |
| Q624 | IC TA7317P |
| Q625 ～ Q628 | 1S2471G |
| Q629 ～ Q632<br>Q640, Q642 ～ Q645 | DS135D |
| Q633 ～ Q636 | W06C |
| Q639, Q641, Q647, Q648 | 1S1555 |
| Q649 | BZ-240 |
| Q650 | WZ052 |
| SLP132B | 8Z100<br>R670 |
| Q701, Q702 | ICM47F(C) |
| Q703, Q704 | 2SC2259(F,G) |
| Q705, Q706 | 2SA995(F,G) |
| Q707, Q708, Q715, Q716 | 2SC2240(GR,BL) |
| Q709, Q710, Q713, Q714 | 2SA970(GR,BL) |
| Q717, Q718 | 2SA1124(R,S) |
| Q719, Q720 | 2SC2632(R,S) |
| Q721, Q722 | IC NJM4560 |
| Q723, Q724 | Z, WZ150 |
| Q771 | 2SC2238B |
| Q772 | 2SA968B |
| Q773, Q775 | 2SC1775A(D,E) |
| Q774, Q776 | 2SA872A(D,E) |
| Q777 | Z, HZ12B2L |
| Q727～Q730 | 1S1555 |
| Q801 | 2SC2591(Q,R) |
| Q802 | 2SA1111(Q,R) |
| Q803 | 2SC2240(GR,BL) |
| Q804 | 2SA970(GR,BL) |
| Q805, Q806 | 2SK30A(Y) |
| Q807 | 2SC1775A(D,E) |
| Q808 | 2SA872A(D,E) |
| Q809, Q810 | HZ681L |
| Q811～ Q814 | DS135(D) |
| Q725, Q726 | 1SS88 |
| QH01 | NJM4560 |
| QE01, QE02 | NJM4560 |
| QE51 | 2SD571 |
| QE52 | 2SB605 |
| QE53, QE54 | HZ16L |
| QK01 | 2SC1775A(D,F) |
| QK02 | 2SA872(D,F) |
| QK03 | 2SC945(P,Q) |
| QK04 | 2SA733(P,Q) |
| QK05 | 2SD313(D,F) |
| QK06 | 2SB507(D,F) |
| QK07, QK09 | 2SC2837(R,O) |
| QK08, QK10 | 2SA1186(R,O) |
| QK11, QK12 | 30DF-2 |
| QL01, QL02 | TL4558 |
| QL03 | NJM2901 |
| QL04 | HD74LS122 |
| QL05 | PC627 |
| QL06～ QL14 | 1S2473 |
| QL15 | 2SC945(P,Q) |
| QM01 ～ QM08 | 2SC2545(E) |
| QM09 ～ QM16 | 2SA1083(E) |
| QM17, QM18 | 2SA872A(D,E) |
| QM19, QM20 | 2SC1775A(D,E) |
| QM21, QM22 | 2SC2320(E,F) |
| QM23, QM24 | 2SD666(C) |
| QM25, QM26 | 2SB646(C) |
| QN01, QN02 | 2SC945(P,K) |
| QN03, QN04 | 2SA733(P,K) |
| QN05 ～ QN08 | 1S1555 |
| QN09 ～ QN12 | 1S2472 |
| QZ01 | SLP132B |
| QM31 | 2SC2238B |
| QM32 | 2SA968B |

**nponents and wiring are subject to change for modification without notice.**